A REVIEW OF

HOSPITAL AND RELATED SERVICES IN NEW ZEALAND

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DEPARTMENT OF HEALTH,
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"The dogmas of the quiet past are inadequate to the stormy present. We must think anew. We must act anew. We must disenthrall ourselves."

Abraham Lincoln

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FOREWORD

The health services of New Zealand are a large, costly and very important aspect of Government administration. For the current financial year 1969/70, estimated Government spending under the headings of Health, Health Benefits and Hospitals will approach $200M or over 16% of expenditure from the Consolidated Revenue Account.

The Royal Commission of Inquiry into Salary and Wage Fixing Procedures in the New Zealand State Services mentioned in its report, published in 1968, that there were 31,229 persons employed in the hospital service and 8,435 in the Department of Health, making a total of nearly 40,000 people involved in the health services. The salary bill alone of this group of workers is of the order of $80M per annum. The number of staff is more than those in departments of Government which are usually regarded as large employers of labour, namely, Railways (22,521), Post Office (29,316), or all Education services (36,883).

There have been some significant changes in the organisation and administration of health services in this country in recent years. Since 1964 the St Helens Hospitals at Auckland, Wellington and Christchurch have been transferred to Hospital Board control, completing the transfer of all maternity hospitals previously administered within the Department of Health. Last year the Queen Elizabeth Hospital at Rotorua was transferred to the Waikato Hospital Board, thus leaving the Department with the hospitals administered within the Mental Health Division, all of which, other than Queen Mary at Hanmer, fall within the scope of the Mental Health Act. The Department's farm lands around psychiatric hospitals not needed for future, including Hospital Board development, have been transferred to the control of the Departments of Lands and Survey or Agriculture. Recently the Mental Health Act has been revised, enabling, inter alia, the transfer of the Department's psychiatric and psychopaedic hospitals to Hospital Boards. In 1968 by amalgamation in two areas, the number of Hospital Boards was reduced from 37 to 31.

Health service organisation and administration is complex. It is made infinitely more so by its multi-disciplinary nature and complicated still further by the fact that it must be linked with university and other educational agencies in the training of all the categories of people necessary to staff our health services. It is becoming technically more and more complex and in operation more expensive. It is ever more important that people at all levels of administration within the service ensure that they are obtaining the maximum benefit for expenditure in men, money and materials.

Dr Dwight Locke Wilbur, as President of the American Medical Association, was on record recently as saying that the practice of medicine will change drastically over the next 10 to 15 years. The Royal Commission on Medical Education in Great Britain made similar comments when dealing in its Report with the future pattern of medical care[1]. This extract from the Report is pertinent: "We have come to the conclusion that the first step in the normal sequence of medical care for the individual patient will continue to be a consultation, in the patient's home locality, with a doctor whose interests and qualifications extend over a broad range of general medicine and who will among other things fill the role of family physician; and that this will be followed if necessary by reference to a specialist. We foresee, however, that the present organisation will undergo considerable change, and that the future pattern of and relationship between the main branches of medical practice will be very different in many respects from what it is now."

This paper has been prepared with all of the above factors very much in mind. It records the history of our New Zealand hospital and related services, summarises present facilities, indicates trends in population and provision of services, and outlines departmental policies and plans for the future. The long term consequences of adoption of these policies and plans are summarised in Appendix 1 of the paper. All this information is set forth as a basis for informed discussion by interested citizens. Constructive comment from whatever quarter would be welcome.

Our thinking on the subject of medical care may well be stimulated by consideration of these recent comments on the American scene by John T. Dunlop of Harvard University:

> "The paramount problem (of U.S. Medical Care) is the need for more productivity . . . brought about by structural changes in the practice and organization of medicine.
>
> Nothing could be worse than to say we need another three or five billion dollars for medical care, and then simply duplicate or multiply the arrangements that we now have. That would get us nowhere. It is the fundamental transformation in a variety of our arrangements that I think is signaled . . . and these arrangements are required and are coming."

It will be apparent that two major objectives are sought in the proposals put forward in this paper, namely the creation of an appropriate number of viable administrative units "at grass roots level" in the hospital and related areas, and the transfer from the Department of Health to these agencies of all non-policy and operational activities. It is my belief that we should move towards these objectives by continuing to reduce the number of Hospital Boards; by transferring to Boards our departmental hospitals, along with other appropriate health responsibilities; and by extending the range of Board functions. This country could then have pre-eminence in its hospital and related services.

D. P. KENNEDY,
Director-General of Health.

September, 1969.

[1] Report of Royal Commission on Medical Education 1965–68, para. 34, H.M.S.O. 1968

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CHAPTER 1: HISTORICAL SUMMARY

General Hospitals

1. The date of the establishment of the first hospital in New Zealand remains somewhat obscure as a result of the loss of valuable Government papers and public documents in the wreck of the "White Swan" when conveying the appurtenances of Government from Auckland to Wellington in 1885. However, it would appear that by 1841 when the first Colonial Surgeon was appointed, some institution was in existence in Auckland into which Maoris, seamen and European patients were admitted, the Europeans only on the authority of the Colonial Secretary.[1]

2. However, it was not until 1846 that Government consented to grant sufficient money for the erection of hospitals in each of the four centres, Auckland, Wellington, Wanganui and Taranaki, for the treatment of sick and destitute Europeans, and free treatment for all Maoris. From the beginning all eligible patients were admitted to hospital wards regardless of race or status. In the South Island, the first Dunedin Hospital was erected in 1851, and there was a hospital in existence in Lyttelton about the same time.

3. In 1852, the Act dividing the colony into the six provinces of Auckland, Taranaki, Wellington, Nelson, Canterbury and Otago was passed, and two years later in 1854, the control of hospitals was vested in the Provincial Councils. Following the Act of abolition of the provinces in October 1875, the control of all hospitals in New Zealand was taken over by the General Government on 1st November 1876.

4. There followed a period of nearly ten years during which many attempts were made to rationalise the hospital system and put hospitals under districts, supported by the contributions of local bodies. In 1877 a Charitable Institutions Act was presented to the House, which denied the principle of local body control altogether; it was withdrawn after spirited opposition. There followed what was probably the first conference on hospital matters in New Zealand, instigated by the Chairman of the Vincent County Council, and held between that Council, the Borough Councils of Cromwell and Clyde and the Municipal Corporation of Alexandra, resulting in the formation of the first two hospital districts based respectively on the hospitals of Dunstan and Cromwell. The control of these hospitals was left in the hands of the existing committees elected by subscribers; the finance was by voluntary subscriptions with Government subsidy £1 for £1, the deficit being made up by the contributing local bodies and the Government in equal shares. It had been intended by Government to form similar hospital districts throughout the Colony but only in a few districts in Otago and Westland would the local bodies, or the committees of the hospitals accept this.

5. As a result of this movement, however, two large conferences of local bodies were held in Wellington in 1878 to give a lead in regard to the best methods to adopt, but they proved abortive. The Colonial Treasurer therefore decided not to bring down any Hospitals Act, as the opposition

was too strong, and contented himself with four clauses in the Financial Arrangements Bill in which as a compromise he recognised two systems:

(1) those hospitals which preferred to be supported by the Government, in which the latter would control the institution and simply deduct the cost from the local body subsidies, and –

(2) those where the hospital was locally controlled and the Government subsidised £1 for £1 the contributions of local bodies and voluntary subscriptions.

This latter principle was the one in existence from 1878 until the 1957–58 financial year when levies on local authorities finally ceased and hospital maintenance expenditure became entirely a Government responsibility.

6. Meantime the Government of Mr John Hall had come into existence and he more than anyone worked insistently to bring about some rationalisation of the hospital system. Bills were tabled in 1879 and 1880 but again the opposition of local bodies was so strong that they had to be withdrawn after the first reading because of the danger of a Government defeat. Government was therefore supporting the institutions at this period, from the Consolidated Fund, without any effective voice in their control. The only move made to remedy this situation was the appointment on 3rd March 1880 of the first Inspector of Hospitals in the person of Dr F. W. A. Skae, M.D., F.R.C.S. (Edinburgh), who combined this post with that of Inspector of Lunatic Asylums. Unfortunately he died shortly after taking over the position, and the first report on New Zealand hospitals, published in 1882, was compiled by Mr Loveday of the Colonial Secretary's Office, from data received from hospital secretaries as a result of an extensive questionnaire.[2]

7. Mr Hall again introduced his Hospital and Charitable Institutions Act in the year 1881 and this time it reached the Committee stage after prolonged debate, only there to suffer the fate of its predecessors. It is of interest that in introducing the Bill, Mr Hall made the significant statement that there was extreme difficulty in convincing the different districts that the scheme was in any way suitable to them. He advocated large districts, as this was necessary to prevent patients passing over into the neighbouring district with the resultant disputes as to which local body was to bear the charges for maintenance. However, opposing opinion was again too strong and realising that he could not get his districts without risking his Government, Mr Hall withdrew the Bill.

8. Meantime, on the 7th November 1882 there was appointed to fill the vacant position of Inspector of Hospitals, Dr G. W. Grabham, M.D., M.R.C.P. (Lond.) who had had twenty-five years experience in hospital administration in England. To his initiative and energy is owed to a large extent, the improvement in the control of hospitals. His first task was to produce a full and detailed report of the hospitals in existence; as a result, after the Stout Government came into power towards the end of 1884, Dr Grabham presented his report to the House as a prelude to the legislation of 1885.[3] In this he recommended that thirteen of the thirty-eight existing hospitals be closed and that the Government subsidy consist of a fixed amount per patient per day up to a maximum of six weeks, after which the rate should be based on the cost of maintenance in a chronic institution and not in an acute hospital. He advocated that power be in the hands of Government to veto suggested buildings, to approve appointments to staffs, and to deal with all irregularities. He added that the chief difficulty in any reform would be to map out the Colony into acceptable

districts and this proved to be the case. Again local sentiment was too strong and not one of the hospitals recommended for elimination was closed as a result of the Act of 1885.

9. In 1885, a further attempt was made to deal with the question of hospital control when Sir Julius Vogel introduced the Hospital and Charitable Institutions Bill. He gave as his reason for introducing it:

> "The necessity of settling difficulties and incongruities due to varying systems of dealing with the question of hospital and charitable aid, and to different usage in provincial institutions, and the consequent excessive demands on the Government, without any of those checks which existed in provincial days".

He laid down as three essential conditions to be fulfilled in the preparation of any measure to deal with the question:

(a) That the committees of management should be essentially local and amenable to public opinion by being elective.
(b) That the expense should be somewhat localised.
(c) That the Government, out of consolidated revenue, should meet a reasonable proportion of the cost of the institutions, but should not be the last resort of each committee in financial difficulty.

10. On 14th September 1885 the first Hospital and Charitable Institutions Act was passed and came into operation on the 5th October 1885. It was followed by the Hospital and Charitable Institutions Amendment Act in 1886, giving power to two or more hospitals to join into a "united district" and control their own affairs.

11. The primary object of the Acts was to place on local bodies responsibility for the major part of the cost of the hospitals and charitable aid, and thus reduce the demand upon consolidated revenue. It placed the administration of New Zealand hospitals upon an entirely new basis since it incorporated the principle that public hospital services were the joint responsibility of local and general Government. It required the local administrative body in each hospital district, the Hospital and Charitable Aid Board, to levy on the wealth of its district for half the sum needed to meet the net cost of the services, and in this way encourage economy in the management of these services. The Acts of 1885–86 were tentative measures designed primarily to provide a solution to the then pressing financial difficulty in connection with the hospitals by apportioning the expenses between Government and local bodies; in this respect they were successful. But the system did not distinguish between wealthy and poor districts and the disparities in hospital rating as between the various districts was a source of complaint for many years. Also, the idea of supporting hospitals by voluntary contributions failed completely. The year previous to the Act (1884) the amount of voluntary contributions for New Zealand hospitals was about one-fourth the amount contributed from public funds; in 1903–04 it was one-fourteenth.

12. In 1886 Dr Duncan MacGregor was appointed as Inspector-General of Hospitals and his reports from then onwards were full of criticisms of the iniquities and extravagances permitted by the Acts. In his report of 1888 he wrote:

> "Many causes have conspired in our history as a colony to intensify the good-nature of our people—at any rate, so far as extravagance in vicarious charity is concerned. Our sensitiveness to suffering has been greatly stimulated by the comparative absence from our towns of those sights of misery and squalor that deaden the feelings by

familiarity; and the lavish life we have led since 1870 has made us free-handed to the poor and impatient of the trouble required to find out whether our charity was wisely or mischieviously given."[4]

He advocated the closing of hospitals and the reduction in status to cottage hospitals of others, and he inveighed against the multiplicity of local bodies that rendered decentralised control an impossibility and administration a farce; but in vain.

13. In November 1906 a Hospital and Charitable Institutions Amendment Bill was presented by the Hon. George Fowlds and it was passed the same year, although many clauses were deleted. It gave Boards control of all Trust properties and extended the term of services of Board members from one year to three, thus ensuring some degree of continuity. The first Board took office under these conditions in April 1907. That same year, Dr MacGregor died and was succeeded by Dr T. H. A. Valintine whose advocacy for reduced districts and base hospitals cannot be bettered today.

14. Twenty-four years after the passing of the first Hospital and Charitable Institutions Act, an amendment was passed making the controlling Boards elective, and the first election under this Act was held in Auckland on 16th March 1910. By this system, which is still operating successfully today, each borough or district elects a member, representation being primarily on a population basis. Several amendments, based on the result of experience were passed in later years and the law relating to the subject was embodied in the Hospital and Charitable Institutes Act 1926, as amended in 1928, 1929, 1932, and 1936, until the passing of the Hospitals Act 1957 on the 18th October 1957, and the Hospitals Amendments Acts of 7th October 1966, 23rd November 1967 and 12th December 1968. These Acts placed added responsibilities on the Minister of Health, and his Department for ensuring the provision of adequate and efficient hospital services throughout New Zealand.

Maternity Hospitals and Services

15. The first mention of Maternity Hospitals in the history of Health Services in New Zealand was of a wooden annexe consisting of two wards attached to the Dunedin Hospital. Three years later the then Inspector of Hospitals referred to the dangers of providing lying-in beds in general hospitals and expressed doubts as to whether maternity beds were required at all as home confinements were considered to be the normal pattern. The Midwives Act of 1904 and the building of four St Helens Hospitals in the main centres for the instruction of pupil nurses and the care of the wives of working men at a fixed charge, marked the beginning of an era of rapid advance in hospital maternity care. In moving the second reading of the Midwives Act Honourable R. J. Seddon said, "Sir, the deaths at maternity are alarming and I say without hesitation that, if these proposals are given effect to, the number of deaths will be decreased. I may say that, up to the present time, we have made no provision for the training of midwives. The midwife is usually a woman of advanced years and, in the country districts and on the diggings, if you ask them the question how they became qualified they would say 'Oh, I picked it up'".

16. One clause of this Bill provided for the establishment of State maternity hospitals where pupil nurses could be instructed in all duties required for the welfare of the expectant mother and her infant. Dr MacGregor reported in 1906 that, "With the passing of the Midwives'

Registration Act 1904 the day of the dirty, ignorant, careless woman, who has brought death or ill health to many mothers and infants, will soon end. After 1907 every woman who undertakes the responsibilities of a midwife will have to show that she is competent to do so. This will necessarily limit the number of women who can be found in a district to attend a case of labour at a low charge. To meet this difficulty St Helens Hospitals have been established in each of the four centres where the wives of working men can obtain, at a fixed charge, care and attendance during childbirth. The success already met with in these hospitals testified to the need for them".

17. During the next two decades attention was given to the problem of puerperal sepsis, the principal cause of the high maternal death rate. In 1924 an Inspector of Maternity Hospitals and a consultant obstetrician were appointed, a programme of antenatal care was started in the public hospitals, aseptic techniques introduced, a system of treatment established in public hospitals for abnormal births, and inspection of private hospitals arranged. In 1925 the passing of the Nurses and Midwives Act laid down a sound basis for the training and practice of midwifery and maternity nursing. The publicity given to these successive steps to improve maternity hospitals and the formation of the Obstetrical Society of the New Zealand Branch of the British Medical Association created community interest, and the women of the country raised funds to endow a chair of obstetrics at the University in Otago.

18. An Amendment to the Health Act in 1932 made the Hospital Boards responsible for providing maternity services for the indigent and four years later attention was drawn to the need for small obstetric units, specially staffed and equipped for obstetric emergencies, which were up to this time treated in surgical departments of the hospitals.

19. Over these early years the trend away from home confinements to Hospital obstetrics showed rapid development. By 1927 58.5 percent of infants were born in hospital and 11 years later 87.32 percent and by the 1960s it had risen to over 99 percent. A little over 50 percent of these confinements in 1938 were in private maternity hospitals, but in the following decade these hospitals faced financial problems and there was a gradual reversion to public hospital control so that by 1950 only 26.7 percent of confinements were in private hospitals. Following a Committee of Inquiry into the reasons for closure of private hospitals set up in 1950 by the Minister of Health, the introduction of a subsidy system and of Government loans for building, improved the situation.

20. There was concern at this period about the number of available maternity beds for the growing population. Between 1942 and 1952 the percentage of confinements taking place in hospitals had increased to 95 percent, but the number of beds only increased from 2,075 (1 to 15.4 confinements) to 2,423 (1 to 20.4 confinements). Increased Hospital and Maternity Benefits reversed this situation to some extent by 1954, and 300 additional private maternity beds were planned. The number of maternity beds available per 1,000 women of child-bearing age (15–45 years) rose gradually between the years 1945–1959, flattened out in the next 3 years, and has shown a decrease since 1962 in accordance with the fall in birth rate.

21. The proportion of private hospital confinements, however, dropped in successive years and by the early 1960s they represented only 14.4 percent. St Helens Hospitals dealt with 5.7 percent and the public hospitals

with 79.1 percent. The taking over of the St Helens Hospitals by Hospital Boards during the present decade has resulted in the present situation in which nearly 85 percent of obstetrical care is undertaken by the public hospitals.

22. The practice of obstetrics in New Zealand and the development of high standard hospital services was further stimulated in 1946 by negotiations between the University of New Zealand, the Auckland Hospital Board and the Department of Health for the formation of a Post Graduate Teaching Centre in Auckland. Dr Doris Gordon who specialised in obstetrics campaigned vigorously for the establishment of a maternity service available to all women in New Zealand and largely due to her efforts the Chair of Obstetrics and Gynaecology was founded in 1952 by the Auckland University College (later the University of Auckland) from a fund sponsored by Rotary. The Auckland Hospital Board and the Department of Health co-operated in setting up a Post Graduate School of Obstetrics and Gynaecology and in opening the National Women's Hospital which was first temporarily accommodated at Cornwall Hospital before being transferred to the new building on the Green Lane Hospital site in 1964.

Mental Health Institutions and Services

23. In common with most Western countries, New Zealand developed parallel and largely independent services for the mentally and the physically ill, a pattern understandable historically, but now indefensible professionally. It came into existence because of serious defects in both professional and social attitudes to the problem of psychiatric illness and continues to exist largely because strong traces of these attitudes still persist.

24. Such provision as was made for the mentally ill by New Zealand over a century ago was usually to be found in jails, in immigration barracks or in converted buildings of this type. Early in its history, in 1884, some beds were set aside at Otago for the treatment of mentally ill patients in a general hospital. This example remained as a shining exception to a general rule although its value was considerably diminished by the ultimate siting of the provincial psychiatric hospital at a substantial distance from the main urban population it was to serve.

25. In contrast to the feelings of pride and concern for general hospital services which were to become such a marked feature of New Zealand local body activity, the early provincial governments failed lamentably to provide suitable care for the mentally ill. It was a direct consequence of this failure that a Mental Hospital Service came into existence. The early attempts of the central government to stimulate provincial administration to provide a more satisfactory standard of care for the mentally ill were not particularly successful. Almost immediately upon the abolition of the provincial governments in 1875, the Mental Hospitals Department was created as an acknowledgment of the fact that there was much to be done.

26. In some respects, however, it was fortunate that central government inherited from the provinces a pattern of local hospitals. Probably as a direct consequence of this it avoided the temptation to build one large institution in the hope that thereby it would more economically serve the needs of the whole country. This proposition was in fact seriously debated in the House, but eventually rejected.

27. It must be acknowledged, however, that an unfortunate consequence of central control was that the majority of institutions became largely separated from the main stream of local social, professional and political life. This isolation was intensified by those very deep-seated, although largely irrational, fears about the nature and implications of all forms of mental disorder which we sometimes like to stigmatise as relics of a less enlightened age.

Hospital Board Finance

28. As outlined above, the Acts of 1885–86 incorporated the principle that public hospital services were the joint responsibility of local and general government, but unfortunately the system which evolved did not work equitably and from 1923 onwards, levies for hospital maintenance purposes were subsidised at rates ranging from a minimum of 14s. per £1 to a maximum of 26s. per £1, but averaging £1 for £1 over all districts.

29. The Social Security Act of 1938 required public hospital treatment to be given free of charge to patients, and Hospital Boards received from the Social Security Fund a payment of 6s. per day per patient. At that time this payment represented something better than Boards had previously collected on average from their patients though it did tend to accentuate the problem of disparities of revenue between Boards.

30. The rate of payment was increased in 1943 to 9s. per day and was regularly reviewed thereafter until this method of reimbursing Hospital Boards was abandoned. The chief purpose of hospital benefits was, of course, to make it easier for patients to secure any necessary treatment and a considerable expansion of the hospital services was therefore a normal consequence. The resultant effect on Hospital Board levies became a matter of concern.

31. Under section 15 of the Finance Act (No. 2) 1946, which became effective from 1 April 1947, the amount to be levied by any Board in any financial year was laid down as "an amount equal to one halfpenny for every one pound of the capital value of the rateable property in the district of the Board, or an amount equal to one-half the net estimated expenditure of the Board, whichever is the less". This provision meant an assured minimum rate of subsidy on levies of £1 for £1 with no fixed maximum.

32. Stabilising the hospital rate in this way resulted in a radically altered outlook on the part of many Hospital Board, there ensuing a demand for buildings, equipment and additional staff which would have remained considerably more modest if the previous rating system had continued.

33. The demand for increased expenditure plus the added effect of inflation of costs during and following the second world war sealed the fate of local levies and under the Hospital Amendment Act 1951, provision was made for the levy to be reduced by 1/12d. each year for six years in order to abolish it altogether in the 1957–58 financial year.

34. Since 1957–58 the only change in the financing of maintenance expenditure is that since the 1964–65 financial year all Government expenditure has been met from Consolidated Revenue instead of in part from the Social Security Fund.

Hospital Districts

35. The division of New Zealand into hospital districts, each administered by a Hospital Board, followed the passing of the 1885 Act and the

present hospital system is a result of the situation which existed at that time, of a scattered and relatively sparse population, with slow and poor communications and the simpler clinical demands of the medical service of that time. This resulted in a reliance on local efforts to provide hospital facilities, and produced a constantly increasing number of hospital districts under local control. The population served by some of the Boards was often ridiculously small when judged by modern standards, but they served a very useful purpose in the circumstances obtaining. There was a steady demand for separation of hospital districts and secession from larger Boards, until 1920 when South Otago (population 16,603) seceded from the Otago Hospital Board (population 93,113). In 1921, however, a Hospitals Commission recognised the need for a reversal of this tendency and recommended a limited policy of amalgamation. This recommendation was not implemented; in 1924 and 1925 three further Boards were created bringing the total number of hospital districts in the Dominion to forty-seven. During the period 1930 to 1950, however, some reductions were effected, and with the amalgamation in 1950 of six Boards in the Northland Peninsula, the total number of Boards was reduced to thirty-seven. In 1953 a Consultative Committee on Hospital Reform was set up by the Minister of Health, and chaired by Mr (later Sir) H. E. Barrowclough "to inquire into and report on matters affecting the administrative control of public hospitals and other services provided by Hospital Boards and after taking evidence, to make recommendations to the Government for the reform of the present hospital system."

36. The report of the Committee was published on 6 November 1953[5] and the principal recommendations made were:

(a) To reverse the policy of placing primarily on local Boards the responsibility of providing hospital services, and replace it with a new policy under which the Minister is charged with this responsibility.

(b) The setting up of five regional authorities through which the Minister could more effectively discharge his duty.

(c) The setting up of twenty-three Hospital Boards in lieu of the existing thirty-seven Boards, each responsible under the general direction and control of its regional authority for the actual management and administration of the institutes in its district, and for the provision of hospital and specialist services in that district.

It also recommended a continuation of the existing elective system for all but five Metropolitan Boards for which it proposed that four members should be appointed and the rest elected. Provision was made for University representation on the Auckland and Otago Boards.

37. Recommendation (a) was embodied in the new Hospitals Act 1957, but recommendation (b) has not been implemented and no progress was made in implementing recommendation (c) until proposals for the amalgamation of the New Plymouth, Stratford, Hawera and Patea Hospital Districts and of the Westland, Buller, Inangahua and Grey Districts were made in June 1965 upon the recommendation of the Hospitals Advisory Council. This first proposal was accepted by the Taranaki Board but was opposed by the other three Boards, and as a result Mr L. G. H. Sinclair was appointed by Government to conduct an independent and informal inquiry into the proposed amalgamation.

38. Following his report on 28 June 1968,[6] Government adopted his recommendations that a new Taranaki Hospital District be formed, to

include the areas of the existing Taranaki District, and of the Stratford and Hawera Districts, and that the Patea Hospital District should be included in a reorganised Wanganui Hospital District. These changes took place on 11 October 1968, and on the same date the four South Island Hospital Districts of Westland, Buller, Inangahua and Grey were also amalgamated to form a new West Coast Hospital District. There are now therefore thirty-one Hospital Districts in place of the previous thirty-seven.

The Medical Schools[7]

39. In 1874 the University of Otago advertised the post of Professor of Anatomy and Physiology in the proposed new Otago Medical School; eighteen applications were received from New Zealand and the United Kingdom. The Council of the University chose Dr Coughtrey as the first medical professor, and the Medical School opened in May 1874. It ended, however, in 1876 when Dr Coughtrey resigned, and from then until 1884 only fundamental instruction in pre-clinical subjects was undertaken at Otago University. In 1885 this two-year course was expanded into a full medical course with instruction in the clinical subjects given by local Dunedin doctors, most of whom continued to serve until well into the next century. These included Dr William Brown, Lecturer in Surgery, Dr Danial Colquhoun, Lecturer in the Practice of Medicine, Dr F. C. Batchelor, Lecturer in Midwifery, Dr John Macdonald, Lecturer in Materia Medica, and Dr Roberts, Lecturer in Pathology and Morbid Anatomy. Later, in 1886, came Dr Frank Ogston from Aberdeen, Lecturer in Medical Jurisprudence and Public Health, and Dr Lindo Ferguson, Lecturer in Ophthalmology. Dr Truby King, Lecturer in Mental Diseases, and Dr de Zonche, Lecturer in Diseases of Children were appointed to the staff the following year.

40. This formative phase lasted until the First World War and was followed by a period of expansion, the greatest single event being the erection of the first school building opposite the hospital and its opening in 1917. The first Dean of the Medical School, Professor J. H. Scott was followed in 1914 by Dr (later Sir) Lindo Ferguson, Professor of Ophthalmology, and he in turn by Sir Charles Hercus from 1937 to 1958, and Sir E. G. Sayers from 1959 to 1967. Professor W. E. Adams acted as Dean from that date until his appointment to the substantive post in 1968.

41. Although closely associated from its inception with the Dunedin Hospital, the Medical School of Otago University has been, to quote Professor R. V. Christie in his report [8] on the Medical School dated 13 April 1968:

> " . . . unique in that its teaching hospitals are administered by an elective board which has no University representation. This system has been in operation for almost one hundred years and it might therefore be assumed that it has been a success.
>
> Nothing could be further from the truth. In 1888 Otago University first asked for direct representation on the Hospital Board and since that has repeatedly indicated the unsatisfactory dichotomy between the Medical School and its teaching hospital.
>
> Today Otago is faced with an unbelievable situation. Its Hospital Board is anxious to help the Medical School and yet lack of communication between hospital and School remains an obstacle to well-informed and therefore efficient, decision."

42. He recommended that there should be four or five University representatives on the Hospital Board, nominated by the University Council. Following representations to the Hospitals Advisory Council by the University and the Hospital Board on 7 June 1968, the Minister decided that the University of Otago should be represented on the Otago Hospital Board by up to five persons nominated by the University Council, the appointments so made to be in addition to and not in substitution of elected members. The necessary amendment to the Hospitals Act 1957, required before this could be implemented, was included in the Hospitals Amendment Act 1968 which was passed by Parliament on 12 December 1968.

43. An Auckland Medical School was first proposed in 1887 by Auckland University College, but this proposal faded out due to lack of financial support and it was not until 1950 that the suggestion that the second medical school in New Zealand should be placed in Auckland, was revived. A committee was set up by the Senate of the University of New Zealand to advise as to the location of the proposed second medical school and its report favoured Auckland in preference to Wellington. At the beginning of 1964 a committee was established to advise the Senate in the University of Auckland on the academic implications of the new medical school. The committee's interim report recommending broad principles of planning was submitted to the Senate in May 1964 and subsequently forwarded to the University Grants Committee. Authority to proceed with the planning of the Medical School was received from the Minister of Education and the Chairman of the University Grants Committee in November 1964, and teaching in the School commenced at the beginning of the 1968 academic year. A new preclinical block to house the Department of Anatomy is in the course of erection immediately opposite Auckland Hospital, and this first stage in the development of the new school is expected to be in use in 1970. Further new buildings will follow, on the same site.

Nursing Education

44. Following the First World War, a Division of Nursing was established within the Department of Health. A Director was appointed and had as her stated responsibilities "the policy and supervision of the Division of Nursing and the administration of the Nurses and Midwives Registration Act." At this stage of development dual responsibility was logical. In later years, however, it was to prove cumbersome.

45. In 1923, from a conference of the New Zealand Trained Nurses' Association, a strong recommendation went to Government asking for the establishment, at Otago University, of a School of Nursing. In 1925 Otago University approved a five year programme leading to a Diploma in Nursing, students entering the Home Science School for the first two years. In 1927 difficulties arose, as the Otago University decided that it could not finance the salaries of the nurse lecturers and so the programme lapsed. Instead a Committee of Management representing the Health Department, Victoria University College and the Wellington Hospital Board was set up to assist with the management of a Post Graduate course established to prepare already registered nurses in the fields of Hospital Administration, Teaching of Nurses and Public Health Nursing. Thus was born the New Zealand Post Graduate School for Nurses and thus died a basic programme in nursing within a University. New Zealand

could have been a leader in university preparation for nursing. Now forty-three years later she is almost without exception lagging behind all other high income countries and many low income countries in not offering university education in nursing for at least a small percentage of nurses. It is significant that "underdeveloped" countries have this kind of preparation for some of their nurses.

46. In New Zealand as in many other countries psychiatric nursing has developed separately from other branches of nursing. This has been largely the result of the historical background in relation to psychiatric hospitals which have developed independently from services for the so-called physically ill. The same can be said for psychopaedic nursing. This independent development has led to fragmentation of nursing programmes and the development of separate Registers for separate programmes.

47. For thirteen years obstetric nursing has been integrated in the three year general nursing programme, and the need for the six-month maternity nursing programme for registered nurses has passed. The eighteen month maternity nursing programme for the unregistered nurse, while being phased out by many schools of nursing, still continues to be offered by Boards who are slow to recognise the much greater value of the community nursing programme followed by endorsement programmes.

48. Up until 1968 an eighteen month programme leading to registration as a Nursing Aid was offered by Boards. These programmes were never very successful. They were largely centred in geriatric units and failed to attract suitable applicants in numbers.

49. Both the eighteen month maternity nursing programme and the nursing aid programme had developed because of the realisation that certain aspects of nursing could be undertaken by nurses prepared through a shorter, less complex programme. This was later substantiated in an exploratory study by the Research and Planning Unit of the Department of Health which indicated that approximately 70 percent of basic nursing can be supplied by nurses thus prepared. The limitations of these earlier programmes, however, were that they were based on too narrow an approach to nursing. Largely because there was no statutory educational prerequisite for entry into the three year general programmes, they did not attract suitable students.

50. The successful development of the community nurse programme with its broader approach to nursing, and the introduction of a minimal educational requirement for entry into the three year general programmes, demonstrates that nursing requires, and can prepare, two kinds of practitioners—those operating at a professional level, and those providing generalised patient care of a simpler nature.

Private Hospitals

51. Researches into the history of private hospitals made by the Director of the Division of Private Hospitals, Dr L. S. Davis in 1955[9] show that the first private hospital licence was issued in 1903 under a section of the Health Act which authorised licensing and inspection but imposed no standards for the hospital or qualifications for the licensee. There were many unlicensed units at the time, and the Act was a measure designed merely to get them licensed as a first step. New Zealand was the first country in the world to register nurses, this was in 1901. St Helens Hospitals were established in 1905. In 1906 the Act imposed standards

and qualifications for what were then called "lying-in hospitals" and surgical and medical hospitals. In January 1907, 293 hospitals were licensed but one hundred of these disappeared by 1908 leaving 191. In 1917 it was recorded that there was little movement owing to the high cost of construction and to staff shortages, but by 1938 there were 288 private hospitals providing 2,639 beds. Hospital benefits followed, resulting in an enlargement of the private hospital sector, and by 1942 there were 321 hospitals with 3,025 beds. However, there ensued a period of depression and by 1954, 175 hospitals had closed their doors for a variety of reasons, leaving 146 hospitals with 3,227 beds.

52. Recognising the important part played by private hospitals in the overall provision of hospital beds in New Zealand, the Government introduced a private hospital loan scheme in October 1952, and this was later extended in 1954 following recommendations made in the Barrowclough Report,[5] to provide suspensory loans, the terms of which were further liberalised in 1956. That year also, a subsidy additional to the hospital and maternity benefits was introduced, and this was increased in 1957 to assist private hospitals in meeting higher wage and salary costs for their employees.

53. The Hospitals Act 1957 brought no change in Government's policy towards private hospitals. Section 3 (b) of the Act provides that it shall be the duty of the Minister, on behalf of the Crown:

> "To encourage the provision and maintenance, to such extent as he considers necessary, of private hospitals within the meaning of Part V of this Act;"

The regulations made under the Act fixed the rates of hospital and maternity benefits, incorporating in the new rates the subsidy introduced in 1956. These rates have been raised from time to time since then, the last occasion being in 1966 following the report of an inter-departmental committee set up by the Minister in 1965 to study and make recommendations on the question of further financial assistance to private hospitals. The level of benefit is now subject to annual review.

54. The current private hospital position is that there are 151 hospitals now functioning, with a total of 3,495 beds available, of which only 235 are maternity beds. Since 1961 the position as regards the total number of private hospitals has remained static around 150, but there has been a steady increase in the number of beds, from 2,883 in 1961 to 3,495 in 1969. This increase has been mainly in the provision of medical beds which have increased from 977 to 1,654 and can be largely explained by the building during the period of a number of large, subsidised geriatric hospitals by religious and other charitable organisations. There has been a steady decline in the number of maternity beds during the same period due in part to the closure of a number of small and uneconomic 3- or 4-bed hospitals, on the retirement of their elderly matrons, in part to the conversion of others to medical and surgical hospitals, and in part to the changing medical and public attitude towards childbirth which now increasingly favours delivery in larger public institutions where full facilities are available in the event of emergencies.

Voluntary Effort

55. The history of the development of hospital and welfare services in New Zealand is full of example of voluntary service. As already shown, many of the original hospitals and charitable institutions which were

established throughout the Dominion between 1840 and 1852 "were the result of the activities of more or less isolated groups of people who, with the enterprise and self-reliance that was so characteristic of their day and generation, took their own measures to provide their own needs". To quote the Barrowclough Report[5] "They had some financial help from the Central Government, but the extent of that help was largely dependent on their own enterprise and their own financial contributions."

56. Since the introduction of the Social Security legislation much medical service, previously run by local community and voluntary effort, was of necessity taken over by the State. But, as has been found in other countries in which the State has assumed responsibility for the general medical and welfare services, voluntary service in the community still has a vital part to play in the good society. Lord Beveridge in his second report entitled "Voluntary Action"[10]—not so well known as his first report on "Social Insurance and Allied Services" on which the modern British Social Security system was established—stresses the importance in the community itself of fostering voluntary effort which he consider the natural completion of the activity of the Welfare State. He sums up by saying this:

> "The state should encourage voluntary action of all kinds for social advance. It should in every field of its growing activity use where it can, without destroying their freedom and their spirit, voluntary agencies for social advance, born of Social conscience and of philanthropy. This is one of the marks of a free society."

57. Trevelyan in his book "Voluntary Service and the State"[11] gives these four types of service, all of which have examples in the New Zealand scene:

(1) Services by men and women, unpaid, as members of boards and committees forming part of the administrative structure of the hospital system: e.g. in New Zealand, the Hospital Boards. The Barrowclough Committee in its report of 1953[5] stated " . . . The voluntary administrator has an important part to play in the organisation. He and the Departmental Officer should be complementary the one to the other. The State and the Voluntary Service are a partnership wherein each makes its own contribution to a common object."

(2) Services to hospitals or in connection with hospitals, by paid or unpaid workers who are members of voluntary organisations and services: e.g. the St John Ambulance, Red Cross, etc.

(3) Services to hospitals or in connection with hospitals by men and women, unpaid, acting in an individual capacity.

(4) Voluntary financial subscriptions to hospitals or to activities connected with the hospital service.

58. There are many examples of Humane Societies very active in the medical field in New Zealand, such as:

(a) *The Order of St John* has already been mentioned in connection with its Ambulance Branch which currently operates 167 ambulances, i.e. 65.7 percent of the entire ambulance services throughout the Dominion. The first New Zealand local centre of the St John Ambulance Association was founded in Christchurch in 1885. In 1872 the first division of the St John Ambulance Brigade overseas was formed at Dunedin. In June 1904 the first district of the Brigade

was constituted. The Dominion executive was formed on 7 January 1910 to combine all the work of the Association and the Brigade in New Zealand. The first overseas Cadet division was formed in Wanganui in 1927. In 1931 the Commandery was formed. In 1946 the Commandery was raised to the dignity of a Priory.

(b) *The New Zealand Red Cross Society* (*Inc.*) which was set up first in 1911 as a branch of the British Red Cross Society and became autonomous in 1931. Its 40 centres and 304 subcentres throughout the country carry out training courses in first aid, home nursing, and communal health and hygiene, for the young and old, and detachments are organised for service in epidemics and disasters such as floods, earthquakes, tornados, etc., as well as for service during wartime.

(c) *The New Zealand Society for the Blind*, founded at Auckland in 1890, has as its purpose the well-being and education of blind persons of all ages.

(d) *The Plunket Society* (the Royal New Zealand Society for the Health of Women and Children, to give it its full title) founded by Dr (Sir) Truby King in 1907 at that time Medical Superintendent of Seacliff Hospital, whose principal aim is the education of mothers in the proper feeding and care of their babies by the provision of Plunket services throughout the country staffed by registered nurses who have undertaken a post graduate course in infant welfare, and by the establishment of Karitane Hospitals for the reception and treatment of sick and ill-nourished babies, and for the training of Karitane nurses.

(e) *The Cancer Society of New Zealand* (*Inc.*) formed in 1929, which undertakes a programme of research into the causes of cancer.

(f) *The New Zealand League for the Hard of Hearing*, founded in 1932 which aims to help totally or partially deaf adults by encouraging them to realise and face their disability and assisting them to live as normal a life as possible.

(g) *The New Zealand Crippled Children's Society* (*Inc.*), founded in 1935 with the aims and objects of ensuring that every crippled child has the earliest possible treatment and continuous after-care.

(h) *The Intellectually Handicapped Children's Society*, formed at Wellington in 1949 with the object of providing services for the care and training of the intellectually handicapped. In collaboration with the Health and Education Departments, this Society runs hostels, workshops, day-care centres and occupational groups and schools where children can get special training, and has branches throughout New Zealand.

59. These are but a few of the many Societies which exist in New Zealand to give medical or welfare services to the community through the voluntary efforts of their members, and supported by voluntary subscriptions and donations by the public. There are also local as well as national organisations active in this field.

60. In addition, there are many voluntary workers, not belonging to any particular Society or organisation who visit hospitals on an individual basis, or in groups, to render service to the patients in a wide variety of different ways.

CHAPTER II: PRESENT FACILITIES

61. In the Supplement to the Annual Report of Hospital Statistics in New Zealand,[12] there were listed, as at 31 March 1969, 31 hospital boards responsible for 197 board institutions comprising 72 general hospitals plus 3 also containing old people's home accommodation, 81 maternity hospitals, 20 special hospitals (non-acute, convalescent, homes for cripples, etc.), and 21 old people's homes. In addition there were 17 departmental hospitals, 10 of which were psychiatric, 4 psychopaedic, 1 for psycho-neuroses, and 1 for the treatment of rheumatic diseases (which has since then been transferred to hospital board control). A list of these Board and Department institutions, showing the number of available beds, etc., will be found in Appendices 2 and 3.

62. Details of all private hospital beds in New Zealand, licensed under the Hospitals Act 1957 as at 31 March 1969 are shown in the table below:

(i) Total number of private hospitals—151.

(ii) Available beds:

Type of Bed	*No. of Beds*
Maternity	235
Medical and Surgical	1,338
Medical (inc. convalescent)	1,654
Children's	235
Psychiatric	33
Total	3,495

In addition, there is one private psychiatric hospital with 90 beds licensed under the Mental Health Act 1911.

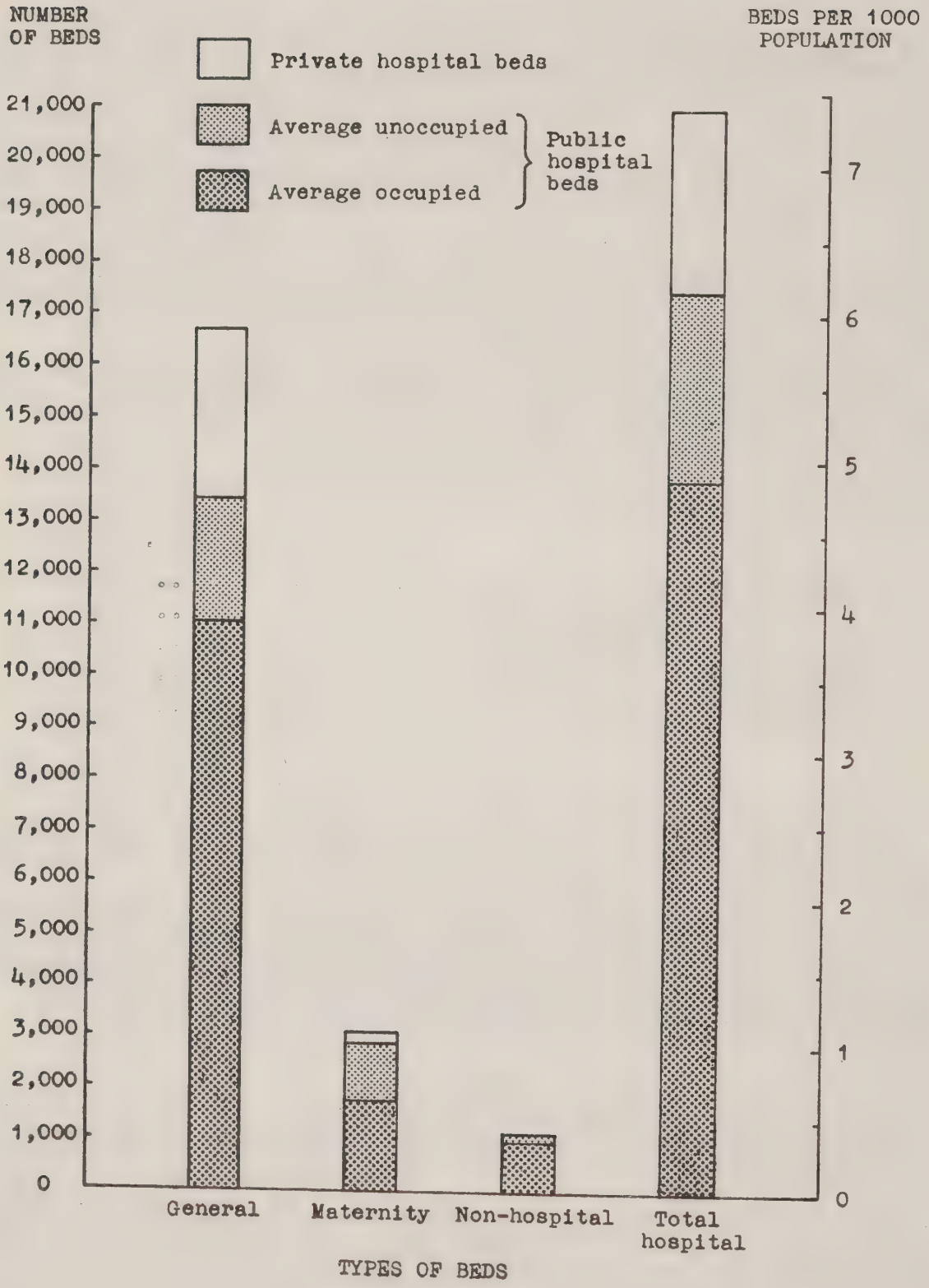
63. The number of beds at 31 March 1968, of all descriptions, available for patients or inmates in all public institutions and private hospitals, is indicated in the table below in respect of psychiatric and psychopaedic beds, and in the following histogram for general and maternity beds.

Mental Health

Type of Bed	Number of Available Beds per 1,000 of Population
Psychiatric, etc	8,025 public + 90 private Total 8,115 .. 2.9
Psychopaedic	1,900 .. .. 0.6

GENERAL, MATERNITY AND NON-HOSPITAL BEDS

AT 31 MARCH 1969



GENERAL HOSPITALS

64. The role and scope of the public general hospitals differs widely according to their size. Some hospital Boards not only provide a complete service for their own population but also provide some service for their neighbours, others are not able to provide a complete service for their own population, and look to their neighbour Boards for assistance. It is difficult to make precise comparison between the hospital services provided by the various Hospital Boards, but they can be divided into the following groups roughly according to their service commitments:

Group	*Board*	*Scope of Services Provided*
A.	Auckland Otago North Canterbury Wellington Northland Waikato Palmerston North Southland	Boards providing a full range of service for their own population. Some provide national specialties in addition.
B.	Tauranga Wairarapa Cook West Coast Hawke's Bay Wanganui Taranaki Nelson South Canterbury	Boards providing a full general service to their own population except for national and some other esoteric specialties for which they depend on Group A Boards' assistance.
C.	Thames Waipawa Bay of Plenty South Otago Taumarunui Waitaki Ashburton Dannevirke Marlborough Wairoa	Boards providing general hospital facilities, with surgery, medicine, etc., but relying on neighbouring Boards for other specialist services.
D.	Vincent Maniototo Waipu Opotiki	Boards providing "Cottage hospital" facilities only and dependent on other Boards for all specialist services.

National and Regional Specialties

65. National and regional specialties are provided by hospitals in Group A in the above classification, and include the following:

(a) *Cardiology and Cardiac Surgery*
Facilities are provided by Auckland and Wellington Hospital Boards, for open "by-pass" cardiac surgery. The Cardio-Thoracic

Surgical Unit at Green Lane Hospital in Auckland has a world-wide reputation, and patients are admitted to it from many parts of the world in addition to those from all over New Zealand. It is in a position to carry out heart transplants as and when suitable donors and recipients become available, but has not so far entered this field.

One private hospital in Auckland has also recently established an open heart surgery unit with appropriate staffing assistance from the Auckland Hospital Board. The equipment was donated by a private benefactor.

(b) *Renal Transplants and Dialysis*
Only one renal transplant unit has until recently been operating in New Zealand, at the General Hospital, Auckland, but a second has just been established and is now functioning at Wellington Hospital. Renal dialysis is carried out on a major scale at Auckland and is being developed at the Wellington, Christchurch, Dunedin and Waikato hospitals.

(c) *Neurosurgery*
Specialist neurosurgical units have been established at Auckland, Wellington and Dunedin, and these units provide consultant services to neighbouring Hospital Boards.

(d) *Radiotherapy*
Fully equipped megavoltage radiotherapy centres are situated in Auckland, Waikato, Palmerston North, Wellington, Christchurch and Dunedin, and there are facilities of a minor nature available at New Plymouth in Taranaki, and Kew in Southland. One private hospital in Wellington has a cobalt 60 supervoltage machine available.

(e) *Plastic Surgery*
Plastic surgery is provided by units in Auckland (Middlemore Hospital), Wellington and Christchurch (Burwood Hospital).

(f) *Rheumatology*
The national centre for rheumatology is at the Queen Elizabeth Hospital, Rotorua, which was transferred from Health Department control to Waikato Hospital Board control on 1 October 1968. The staff from this hospital visit other centres in the North Island and provide a consultant service for Hospital Boards, and the hospital itself admits patients from all over New Zealand. At this hospital also is situated the National cerebral palsy unit. Other rheumatology units are at Auckland, Wellington, Dunedin and Palmerston North.

(g) *Blood Transfusion Services* are available in most Board areas, and there are Regional Blood Transfusion Officers centred at Auckland, Palmerston North, Wellington, Christchurch and Dunedin. These officers, together with Health Department representatives, constitute the Blood Transfusion Advisory Committee advising the Department and Hospital Boards on all aspects of blood and intravenous fluid therapy and upon the preparation and use of such blood products as Tetanus Immune Globulin (Human), Vaccinia Immune Globulin (Human), anti-Rh Gamma Globulin, etc.

(h) *Obstetrics and Gynaecology*
The first national post-graduate centre, the National Women's

Hospital is located in Auckland with a Professorial and Research Department under the Professor of the Auckland Post Graduate School of Obstetrics and Gynaecology. A second unit, with both regional and undergraduate teaching responsibilities is the Queen Mary Hospital situated in the teaching complex of Dunedin Hospital. Other regional centres have been developed at the Christchurch Women's Hospital (formerly St Helens Hospital), and at Waikato Hospital.

The Maternity Services Committee of the Board of Health, set up in 1960 has wide terms of reference—"to inquire into and advise on all matters of policy affecting maternal welfare". It is chaired by the Director of the Division of Public Health and has a membership representative of the various professional, specialist, nursing and lay bodies interested in the maternity services in New Zealand. The Committee has under consideration at present, a revision of the Obstetric Regulations 1963, made under the Hospitals Act 1957 and the Nurses and Midwives Act 1945. These regulations bring together all existing regulations dealing with obstetrics and they apply to all private maternity hospitals, maternity hospitals which are separate institutions, and maternity hospitals and wards under the control of Hospital Boards. They also apply to Midwives and Maternity Nurses in domiciliary practice. They deal with the staffing of hospitals, and with records and equipment as well as the control of communicable diseases and septic conditions in relation to patients and infants.

The Professor of Obstetrics and Gynaecology in Auckland was appointed in 1967 as Adviser to the Department of Health on all matters concerning maternal care; he is also a member of the Maternity Services Committee. In addition to his consultant position with regard to special aspects of maternal care—prenatal, obstetric and post-natal care, and peri-natal and neonatal mortality, he is available in consultation on obstetric and maternity hospital planning, and advises the Department upon neo-natal intensive care units, new drugs in obstetric practice, training programmes for medical officers of health, medical officers, public health nurses, etc., and for parent education programmes.

Clinical Services Departments

66. There has been a noticeable increase in the extent and variety of what may be broadly termed clinical services, provided by Hospital Boards, the term embracing pathology services in hospital laboratories, radiological services in X-ray departments, and rehabilitation services in physiotherapy and occupational therapy departments. As a result there have been major improvements made or planned in the clinical service departments of many of the hospitals in the country during recent years (see Appendix 4). New clinical services departments have been built or are in the construction or planning stages at Auckland, Waikato, Rotorua, Whakatane, Taumarunui, Oamaru, Gisborne, Timaru, Dunedin, Grey, Kew, Tauranga, Napier, Wanganui and Wellington hospitals.

(a) *Pathology Services* have shown striking developments over recent years with consequent heavy staffing demands for both pathologists and laboratory technologists. Within pathology itself the specialities of biochemistry, haematology, microbiology, and morbid anatomy have developed and separated rapidly and hospitals are required to

provide these services not only for their own inpatients but also to serve the needs of outpatients and the patients of private practitioners, though in the latter case especially in the metropolitan and major centres private pathologists provide a very considerable alternative service.

To assist Boards and especially those hospitals which have no pathologist on their staff, the Department has enlisted an Advisory Pathologists Service and appointed senior pathologists centred in Auckland, Hamilton, Napier, Wellington, Christchurch and Dunedin, as Advisers. They pay annual visits to all the laboratories in their designated areas, and report to the Department on the services provided including adequacy of staff and equipment. Their resultant advices are of continuing service to the Department and appreciated by the Boards concerned who have been ready to accept and to implement recommendations made.

(b) *X-ray Services*

Rapid advances in cardiac and vascular surgery and in neurosurgery (see paragraphs 65 (a) and (c) above) have contributed to the increasing load on diagnostic X-ray services and to marked demand for the sophisticated equipment and the personnel necessary for its operation and maintenance. Concurrently there has also been progress in the basic diagnostic X-ray services, e.g. barium screening, chest X-rays, the diagnosis of trauma in bone or joint or diseases affecting these tissues, and also such soft tissue X-ray procedures as mammography. Another field in which rapid advances have occurred during recent years is that of radio-isotopes and the scanning techniques associated with the use of these substances for diagnostic purposes. Major radio-isotope units have been established at Auckland, Palmerston North and Christchurch and are being developed at Waikato, Wellington, and Otago. These substances are also used to a restricted extent at New Plymouth, Nelson, Napier and Invercargill.

(c) *Rehabilitation Services*

There is an increasing appreciation of the value of a co-ordinated rehabilitation service and the key role of hospital departments of Physiotherapy and occupational therapy in implementing a rehabilitation programme which ideally should provide both for hospital in-patients and out-patients and also for private general practitioners' patients. To meet this need, many hospitals have provided new or extended accommodation for their physiotherapy and occupational therapy departments (see Appendix 4), and new facilities are planned in the building development programme of other Boards. Assurance of supply of trained staff to run these departments is a continuing concern of the Department, of the Physiotherapy and Occupational Therapy Boards and of the Hospitals themselves.

Consideration is currently being given to the concept of a common core to the training of physiotherapists and occupational therapists in order to further the aim of establishing a co-ordinated rehabilitation service.

Ambulance Services

67. The ambulance services in New Zealand are co-ordinated by the Ambulance Transport Advisory Board (see paragraph 88 (e)). Hospital

Boards are required by statute (section 4 of the Hospitals Act 1957) to make provision for the transport of sick and injured patients, and this they do either themselves or through arrangement with a voluntary organisation to provide the ambulance service for their district. Six of the smaller Hospital Boards operate ambulance services without assistance from other organisations. Fourteen Boards operate ambulances in conjunction with other ambulance operating organisations. Eleven Boards do not have their own ambulances and depend upon the St John Ambulance Association, local committees or local residents or other bodies to whom these Boards pay annual subsidies.

68. For patients who require air ambulance there are thirty-seven aircraft operated by aero clubs and commercial operators available for this purpose. In addition, the Royal New Zealand Air Force provides in emergency an air ambulance service for Hospital Boards whenever the aero clubs and commercial operators are unable to make aircraft available or have not suitable aircraft for the purpose. The use of R.N.Z.A.F. helicopters for difficult mountain rescues of injured persons is an example of the help given.

Domiciliary Services

69. The level of provision of hospital beds throughout the country coupled with an increased demand for hospital admission has led to a rapid development by some Hospital Boards during recent years, of their domiciliary services. The objective of these services is to ensure that wherever appropriate, patients should be treated in their own homes rather than in hospital beds, which are expensive to provide and maintain, and which should be reserved for cases for which admission is necessary.

70. To assist in this objective, Hospital Boards have steadily extended their service into the community in metropolitan and urban areas by developing district (domiciliary) nursing services utilising both registered nurses and registered community nurses, Home Aid Services, Exchange Laundry Services, and in many areas a Meals on Wheels Service. There is still, however, evidence of a lack of sufficient liaison between the domiciliary staff of Hospital Boards, and the general practitioners and public health staffs in their districts. There is a need for a more co-ordinated integration of all those skills and facilities which are required to meet the health needs of a population, other than the need for actual in-patient hospital care. A step in this direction has already been taken in two major metropolitan centres by the establishment by the Hospital Boards concerned of a special post, for a senior medical officer, to take overall charge of the Board's extramural hospital services.

71. District nurses provide a service for those patients who are referred by medical practitioners either employed by Hospital Boards, or in private practice. The district nurse visits patients in their own homes to provide nursing care such as administering injections prescribed by the patient's medical practitioner, dressing wounds or ulcers, treating "pressure areas", on persons largely confined to bed, and supervising bathing or showering where due to infirmity such assistance is desirable. They assist with the rehabilitation of persons, e.g. with paraplegia, and also in some cases assist mothers and infants following discharge from obstetric wards. They also have the responsibility of instructing patients and relatives in matters of health and personal hygiene.

72. District nurses are employed in a limited number of rural areas where they are required to provide an emergency service in the event of

accidents, pending the availability of skilled medical advice and treatment. In most rural areas, however, the domiciliary service and emergency care is provided by the public health nurses employed by the Department of Health.

73. Home Aid services are provided free by Hospital Boards where the patient is being attended by a district nurse and it is considered that domestic assistance as provided by the home aid is necessary.

74. Certain Boards in addition provide for domiciliary visits by physiotherapists and occupational therapists to assist in a programme of rehabilitation where indicated, e.g. recovery from a stroke.

75. The Meals on Wheels service supplies one hot meal daily, usually for five days per week to persons who require this form of assistance to ensure suitable nutrition, e.g. frail elderly or convalescent persons, especially when living alone. In most instances the hot meals are prepared in the Board's hospital kitchen and these are carried in containers to the individual homes usually by voluntary workers. Where necessary arrangement is made also for hospital laundries to provide a laundry service for patients in their own homes.

76. Some Hospital Boards also supply items of surgical and nursing equipment on loan to patients in their homes, e.g. bedpans, wheelchairs, oxygen cylinders, etc.

77. There is a small and apparently decreasing demand upon the services of domiciliary midwives. This is illustrated by the fact that the cost has decreased from $5,298 in 1965–66 to $3,777 in 1968–69. It is likely that there are fewer than 100 cases per year covered by this service.

Day Hospital Services

78. The development of day hospital services, i.e. the provision in hospitals of accommodation and facilities for treatment, rehabilitation, etc., for patients who live in their own homes but attend hospital for varying periods during the day, has been mainly confined to the fields of mental health and geriatrics. In the former, the day hospital at Sunnyside Hospital, Christchurch has been working to full capacity and day patients also attend at Mangere and Levin Hospitals and Training Schools, and a number of psychiatric hospitals, and at the psychiatric departments of some public hospitals. Day patients also attend at the day ward which has been established at the Cornwall Geriatric Hospital at Auckland, and there are services provided by the Tauranga, Northland and Wanganui Hospital Boards among others and by Calvary Private Hospital in Christchurch.

Out-Patient Services

79. There are inevitably differences in the scope and variety of out-patient services provided by the various Hospital Boards, depending on many factors including the size of the Board concerned, the population it serves, and also the availability or otherwise of general practitioner and specialist facilities in the community. In general, however, all Board hospitals have a casualty service, available at all times, to deal with accident and other cases of emergency.

The medical staffing of casualty departments (becoming more appropriately known as Accident and Emergency Departments) also varies according to the size and nature of the hospital concerned. Some of the larger hospitals employ medical officers of specialist status or their equivalent in experience, assisted by one or more registrars and house

surgeons in their respective casualty departments. Others may have to depend entirely on junior resident medical officers, while in the smaller units, staffing is determined by the availability and integration of general practitioner hospital and specialist facilities in the community.

80. There is a wide variety in the range of out-patient services other than casualty services provided by Boards.[13] Many operate a restricted service, i.e. only attend out-patients who have been referred by general practitioners or by the hospital visiting staff. Some do not insist that general medical practitioners first refer all cases to the hospital and sometimes too readily accept for diagnosis and out-patient treatment, any person who presents himself at the out-patient department with or without a general medical practitioner's referral. Some hospitals, staffed entirely by part-time visiting general medical practitioners do not provide out-patient services.

81. There is, however, a group of specialties which, because of their highly technical nature, the need for expensive special equipment, and the comparatively few patients involved must as a rule be accepted as the responsibility of the public hospital, e.g. radiotherapy, open cardiac surgery, etc. (see paragraph 65 (a) and (d)).

Assistance to Inmates of Rest Homes

82. In 1961 a pilot scheme was introduced in Auckland, with the approval of the Minister of Health and Social Security, for the classification of aged persons in need of hospital or rest home accommodation by a committee of representatives of the Auckland Hospital Board and the Social Security Department to determine their respective responsibilities for the provision of assistance. Under the scheme age beneficiaries are classified as follows:

(a) Social cases whose main requirement is accommodation.
(b) Frail ambulants, being elderly frail who are unable to live by themselves or continue to live in their existing environment.
(c) Acute geriatric cases, being elderly persons suffering from some acute illness requiring medical care.
(d) Long term geriatric cases who need some assistance but whose admission to a geriatric hospital is not urgent.

For those in categories (a) and (b), the Social Security Department considers the question of financial assistance towards the care of beneficiaries in privately run homes for the aged, while (c) and (d) remain the responsibility of the Hospital Board.

In 1966 the scheme was implemented in Christchurch and further extension of it is dependent on representations to the Minister by Hospital Boards based on evidence as to the need of this type of assistance in their area of administration.

MENTAL HEALTH SERVICES

Psychiatric Hospitals

83. There are eleven psychiatric hospitals directly administered by the Division of Mental Health of the Department of Health. These contain a total of approximately 8,000 beds. The majority of these hospitals cater for all types of psychiatric disorders and for acute, convalescent and long-stay patients. Special units include Queen Mary Hospital, Hanmer which deals primarily with alcoholism and neurotic disorders and the Security Unit at Lake Alice Hospital which admits on a national basis

any patients considered to represent a particular danger to the community.

84. All psychiatric hospitals have shown in recent years a great increase in patient turnover so that the great majority of new admissions are now discharged in less than three months, often in less than one month. The numbers of long-stay psychiatric patients are steadily decreasing, although in most hospitals there has been a corresponding increase in the numbers of adult mentally subnormal patients requiring institutional care.

Psychopaedic Hospitals

85. There are four hospitals with special facilities for the care and training of mentally subnormal patients. These comprise a total of 1,900 beds. Although these hospitals do have a complete age range among their patients, their emphasis is on the care of children and the trainable group of adolescents and young adults. For this purpose they have a wide range of training facilities. In New Zealand as in nearly all developed countries, there are sizeable waiting lists for admission to psychopaedic hospitals.

General Hospital Psychiatry

86. At present there are in-patient psychiatric units within general hospitals in Whangarei, Auckland, Tauranga, Hastings, Wellington, Christchurch, Timaru, Dunedin and Invercargill. Being small units they must concentrate on short-stay patients. Within that limitation they can admit a wide range of psychiatric disorders. In most such units a high proportion of cases of alcoholism, drug misuse and attempted suicide are seen, since these disorders frequently present in their acute phase at a general hospital. Such units also provide consultation services for the rest of the hospital. The shortage of psychiatrists is the major limitation on development of further units of this type.

87. The most important voluntary organisations concerned with mental health services are the Intellectually Handicapped Children's Society, Mental Health Association, Stepping Stones, and Recovery. There is also a large group of voluntary workers who visit Kingseat Hospital, and several hospitals have "Welfare Councils" and similar organisations of parents, relatives and well wishers.

ADMINISTRATIVE PROCEDURES

88. The Minister of Health, and his Department are advised and assisted in the administration of the Hospitals Act 1957, the Mental Health Act 1911 and all other legislation relating to the provision and maintenance of hospital services throughout New Zealand, by a number of committees and advisory bodies, some statutorily established, and others set up by the Department, with the co-operation and assistance of interested associations and professional organisations. The more important of these are:

(a) *The Hospitals Advisory Council* is a Council of six persons, established under section 7 of the Hospitals Act 1957, for the purpose of making recommendations to the Minister on such general matters relating to the provision, control and management of institutions, hospital accommodation, and services by Hospital Boards as it thinks fit, and on any questions referred to it by the Minister, relating to the performance of his functions or of the functions of Hospital Boards for the purposes of the Act.

The Council has as its Chairman, the Director-General of Health and the other five members comprise representatives from Treasury, Ministry of Works, the President of the Hospital Boards' Association Inc., of New Zealand, and two members of Hospital Boards nominated by the Executive Committee of the Hospital Boards' Association, one representing Hospital Boards in the North Island, and one Boards in the South Island.

Among the matters considered by the Council and on which recommendations have been made to the Minister during the past few years have been the union and reconstitution of hospital districts, the constitution of committees of management for hospital committee areas in reconstituted hospital districts, the closing and transfer of institutions, and the establishment of specialist services such as kidney transplant units, open heart surgery units, etc.

(b) *The Hospitals Works Committee* is an advisory committee established under section 12 of the Hospitals Act 1957, consisting of the Director-General of Health, the Secretary to the Treasury and the Commissioner of Works or their nominated representatives. Its function is to consider and make recommendations to the Minister in respect of any proposal made to the Minister by any Hospital Board for the acquisition of any land or for the erection, extension or alteration of any hospital or other institution and in respect of such acquisition, erection, extension or alteration where the expenditure exceeds a prescribed amount at present $20,000). The Committee also makes recommendations to the Local Authorities Loans Board in respect of any application for consent to borrow money made to that Board by any Hospital Board.

This Committee meets frequently, to make recommendations to the Minister on a variety of subjects, including Hospital Board development schemes, building and engineering projects, land purchase and sale, loans, proposals for private hospitals, old people's homes and pensioner flats, and Mental Health Division building and engineering projects.

Most projects are considered by the Committee on more than one occasion, as building proposals are in general examined at each stage as they progress from the original approval-in-principle through to the acceptance of tenders.

(c) *The Board of Health*

The Board of Health has established the following committees to consider and advise on matters bearing on hospitals and relevant services:

(1) *The Maternity Services Committee*

This is essentially a technical committee and is given a degree of autonomy from the Board. It receives submissions from organisation or individuals on matters pertaining to maternal welfare.

The Committee has over the years made various recommendations to the Department including:

(i) Advice on the future role of the St Helens Hospitals.
(ii) Aspects of maternity hospital planning.
(iii) A recommended showering technique.

(iv) Assistance with the introduction of a scheme to provide for the regular calibration and testing of Trilene inhalers.

It also developed a proposal to institute the notification and investigation of maternal deaths, this eventually leading to the introduction of the Maternal Mortality Research Bill enacted in 1968 and coming into force in April 1969.

The Committee is currently engaged in a survey of maternity hospitals. Recently also it has considered the problems of illegitimacy and has recommended approval by the Minister of Health of a programme to prevent Rh (D) haemolytic disease of the newborn by the use of anti Rh gamma globulin. It is responsible for periodic review of the Obstetrical Regulations.

(2) *The Board of Health Committee on Care of the Aged*
This Committee was established by the Board of Health in 1964 to investigate the current policy in respect of all aspects of the care of the aged and to make appropriate recommendations.

It met on a number of occasions in Wellington between 1964 and 1966 as well as visiting various geriatric hospitals and homes for the aged throughout New Zealand. A comprehensive report was prepared for the Minister in terms of the order of reference and published by the Board of Health in 1967 in its report series as Report No. 12 "Report of the Board of Health Committee on the Care of the Aged in New Zealand".[14]

Having completed the specific purpose for which it was established it is likely that the Committee will be succeeded by a Standing Committee of the Board of Health on the care of the aged.

(3) *Board of Health Committee on Sterilisation Procedures*
At the request of the Minister of Health the Board of Health in 1962 set up a Committee to advise on the facilities for sterilisation to be provided in hospitals, allied institutions and other services. The Committee published its "Report on Sterilisation Procedures" in 1967 (Cyclostyled Series 1967 No. 1).[15]

(d) *The Medical Laboratory Technologists Board* is a non-statutory body set up by the Minister in 1964 to replace the Hospital Laboratory Advisory Committee. It acts as an examining and advisory authority to the Director-General of Health in relation to:

(i) The duration and syllabus of the courses for the Certificate of Proficiency and Intermediate Examinations.
(ii) The pre-requisite qualifications of trainees and the supervision of training.
(iii) The conduct, time, place and form of these examinations.
(iv) The appointment of examiners.
(v) The publication of examination results.
(vi) The recognition of equivalent qualifications.
(vii) The recognition of training laboratories.

(d) *The Central Committee on the Training of Orthopaedic Technicians* is a similar non-statutory body charged with the same responsibilities in respect of Orthopaedic technicians.

(e) *The Ambulance Transport Advisory Board* is another non-statutory Board giving advice to the Minister on all matters connected with the transport of patients by land, air or sea, and has representation from Hospital Boards, ambulance operators such as the St John Ambulance Association and the Wellington Free Ambulance, the Military Forces, etc.

(f) *Other Committees*
The Health Department is also represented on a wide variety of other Committees connected with such matters as civil defence, rehabilitation, the care of the aged, blood transfusion, and referable matters considered by, for example, the Standards Institute, etc.

(g) *Organisations* interested in the provision of hospital facilities and their maintenance and development in New Zealand which make representations and recommendations to the Minister on occasion, include the Hospital Boards' Association, the Hospital Officers' Association, the Medical Superintendents' Association, the Private Hospitals' Association and various professional medical bodies and associations.

(h) *Statutory Boards*
Statutory Boards have been established under a number of Acts relating to occupations auxiliary to medicine including the Pharmacy Act 1939, the Physiotherapy and Occupational Therapy Acts 1949, and the Medical and Dental Auxiliaries Act 1966. The last-named covers, at present, the registrable occupations of chiropodist, dental technician and optical dispenser. All these Boards are in general terms concerned with the education and registration of persons engaged or intending to become engaged in the registrable occupation concerned, including the conducting of appropriate examinations, and with the exercising of disciplinary powers in respect of registered persons.

FINANCIAL ADMINISTRATION

Maintenance Expenditure

89. In paragraphs 28–34, an outline has been given of the development of the Hospital Board finance structure from its earliest days up to the 1964–65 financial year when the financing of hospital maintenance expenditure came entirely out of the Consolidated Fund.

90. Between the financial years 1958–59 and 1966–67, there was a very rapid growth in expenditure from public funds, the total expenditure in 1958–59 being $44,309,954 and in 1966–67 $93,084,078, i.e. an increase of 110 percent in eight years.

91. In June 1966 all Hospital Boards were advised that because of the need to keep total Government expenditure within reasonable limits, Government had decided that the total amount which could be made available from the Vote—Hospitals, for the year ending 31 March 1967, was $88.7 million. This represented approximately 2.2 percent less than the total of the estimates submitted by the Boards. Boards were therefore asked to make a careful re-examination of the estimates already submitted with a view to reducing maintenance expenditure for the year by some 0.2 percent. Despite this request, Boards as a whole did little in the way of worthwhile savings and expenditure for the year was nearly $M2 more than Government had advised Boards was to be made available by way of grants. As a result, in February 1967, the Minister advised

the Chairmen of all Hospital Boards that for 1967–68 they would be required to operate strictly within maintenance expenditure allocations approved by Government, instead of receiving grants based on their estimates of maintenance expenditure for the year less revenue earned, as in previous years. In March 1967 the Minister announced at the Hospital Boards' Association Conference in New Plymouth that the Government was making available for 1967–68 a total of $M79.68 by way of grants for maintenance expenditure, exclusive of interest on loans and that additional provision was to be made for ruling rates and similar salary increases. It was made clear that Boards would be receiving more generous treatment than was being applied in other fields of Government expenditure where Departments were suffering a $2\frac{1}{2}$ percent reduction on their 1966–67 appropriations. In effect Boards would be receiving an increase for 1966–67 of 1 percent over the 1966–67 grants. The principles followed that year in allocating maintenance expenditure grants to individual Boards were:

(a) Five "High Cost" Boards to suffer a cut of $1 per head of population.
(b) Eight "Low Cost" Boards to be given additional grants, at a varying rate of $2 to 50 cents per head depending on the Boards concerned.
(c) Seven Boards where population growth during the five year period 1961 to 1966 exceed the Dominion average growth rate of 10.9 percent to be granted additional allocations at the rate of $25 per head for the annual excess number above 10.9 percent.
(d) A small amount of the total grant available was retained to enable special additional allocations to be made for emergency expenditure, e.g. commissioning of a new hospital.

92. It was realised, and admitted by the Department that the methods used in the preparation of the grant allocations that year represented "rough justice" only, but were the only ones which could be applied in the short time available, and in the event, they proved to be reasonable in the case of most Hospital Boards.

93. Before the preparation of the proposed maintenance grant allocations for 1968–69 a special committee was set up to submit recommendations to the Minister, comprising representatives of the Department, the Hospital Boards' Association, the Medical Superintendents' Association and the Hospital Officers' Association. This Committee considered material prepared by the Department to assist in devising an improved formula for allocating Hospital Boards' maintenance expenditure grants. As was pointed out, it was evident that without more precise costing statistics than were at present available, no definite formula could be arrived at which could be applied with complete confidence to all Boards, and also that with so many inter-related factors which could affect expenditure only a reasonable recipe could be evolved.

94. However, certain principles were adopted by the Committee in arriving at as equitable an arrangement as possible in apportioning the money made available by Government in the way of maintenance grants to Boards. These were as follows:

(i) As in the case of 1967–68, from whatever sum Government should make available, there must initially be set aside appropriate amounts to cover:

(a) Special allocations to meet the cost of commissioning new buildings or major developments coming into operation during the financial year.

(b) A small reserve to be held at Departmental level to meet unforeseeable maintenance circumstances arising during the year, grants to Boards taking Commonwealth doctors for post-graduate training, etc.

(Provision to cover the additional cost of salaries, wages and expenses resulting from ruling rate surveys or similar national awards is made separately.)

(ii) This would leave a certain sum to be allocated to Boards, and the following principles were followed:

(a) An examination was made of the likely expenditure of each Board for 1967–68 in relation to its allocation for that year in order to determine the adequacy of this allocation to meet the Board's current commitments. These allocations, adjusted as necessary following this examination, were then taken as the starting point for the 1968–69 allocations, though it was pointed out that Boards which had been particularly successful in controlling expenditure would not be penalised.

(b) The allocation of the additional finance was not made on a population basis due to the differing roles of Boards in relation to their size and to the service provided to their own and neighbouring populations. Instead the growth in service achieved by Boards over the previous seven years was examined using as indices of trends in work load, the following factors:

(1) In-patients treated per available bed.

(2) Out-patient attendances.

Additional allocations were then made, scaled to take this growth into account, and Boards were divided into three groups for this purpose:

(a) Those with clear evidence of increasing work load meriting a higher than average proportional increase in allocation.

(b) Those with an average increase in work load meriting an average increase in allocation.

(c) Those with no marked upward trend in work load meriting less than average increase in allocation for 1968–69.

95. In May 1968 the Ministers of Health and Finance gave their joint approval to the maintenance expenditure allocations for Hospital Boards for the year ending 31 March 1969 on this basis.

96. In order to establish, on a permanent basis, the procedure whereby Hospital Boards prepare their estimates within the amount granted by Government, sections 88 and 89 of the Hospital Act 1957 were appropriately amended by sections 11 and 12 of the Hospitals Amendment Act 1968.

The Loan System for Major Capital Works

97. Section 60 of the Hospitals and Charitable Institutions Act 1926 laid down the conditions governing the borrowing of money, by Hospital Boards, to finance capital works, including the payment of interest and the repayment of principal in respect of any debentures issued. The

Local Authorities Loans Act 1956 made provision for the setting up of a Local Authorities Loans Board to consider *inter alia* all proposals made by Hospital Boards, for borrowing money for such purposes.

98. Section 87 of the Hospitals Act 1957 authorised Boards, subject to the provision of the Act and of Parts I and VI of the Local Authorities Act 1956, and with the prior consent of the Minister, to borrow money from time to time for the purpose of erecting buildings or of making additions or alterations to buildings, or of purchasing or developing land or of purchasing equipment, or for the purpose of any other capital expenditure, or for the purpose of repaying or converting the whole or any part of any loan previously raised by the Board or for which the Board is liable. The repayment of all money borrowed by any Board whether before or after the commencement of the Act and the payment of interest thereon was guaranteed by the Crown.

99. This is the system currently in force for major capital development projects with the exception that, as provided in section 12 of the Hospitals Act 1957, all such projects must first be recommended for Ministerial approval by the Hospital Works Committee (see paragraph 88 (b)). All capital works exceeding $20,000 in total cost are financed by Boards from loans sanctioned by the Local Authorities Loans Board. Repayment of loan principal and interest on loans are met by Government through items in the Annual Estimates under Vote: Hospitals.

Expenditure on Minor Capital Works and Equipment

100. In addition to making grants to Boards to cover repayments of loans and interest on them, Government has, since 1959–60, made available grants to meet the cost of minor capital works and equipment costing up to $20,000. Allocations to Boards are made on the basis of population and occupied beds and in addition excess allocations are made to a few small Boards, and for special purposes.

THE TEACHING COMPONENT OF HOSPITALS

MEDICAL EDUCATION

Undergraduate Training

101. Paragraphs 39–43 outlined the history of the Otago Medical School and its association with the Dunedin Hospital, and gave a brief history of the new Auckland Medical School which opened its doors in the academic year of 1968 with an intake of sixty students.

102. However, in 1938 three other hospitals had become associated with Otago's undergraduate medical training—the base hospitals of Christchurch, Wellington and Auckland, which were utilised to assist in the teaching of sixth year students, as Branch Faculties, each with a sub-Dean. The members of the hospital staffs appointed by the University of Otago as clinical lecturers, on the advice of Joint Relationship Committees set up in each of the three centres, have the status of honorary members of the Medical Faculty of the University with the right of attending Faculty meetings. Grants were made by the University Council to the Joint Relationship Committees of the three recognised hospitals towards the emoluments of these clinical teachers and in 1948 these grants were increased to permit the hospitals to provide medical and surgical tutors whose salaries were equally shared between the Medical School and the Hospital Boards concerned. In 1955 a further increase in the grants

enabled each Branch Faculty, aided by the Hospital Boards, the Medical Research Council and private donations, to establish a full-time medical unit to comprise a senior specialist and a senior registrar with 30 beds. Some initial difficulties with the Hospital Boards occurred, particularly owing to the fact that the existing Hospital Acts made no provision except in the obstetrical and gynaecological hospital in Auckland, for the expenditure of moneys on research, but this difficulty was later overcome, and the new Hospitals Act of 1957 removed a previous anomaly by which Boards were not permitted to spend moneys on accommodation, equipment and facilities for the teaching of medical students. Since then the Branch Faculties have contributed much to medical education in New Zealand, and the Auckland Branch Faculty has paved the way for the advent of the second medical school there, in 1968.

103. It is clear, too, that additional provision will have to be made for an expansion of the branch faculties at Christchurch and Wellington to make possible an anticipated increase in the number of graduates from the Otago Medical School.

POSTGRADUATE EDUCATION

104. The University of Otago has long been active in the field of postgraduate medical education and offers a number of postgraduate degrees and diplomas. These include the degrees of Doctor of Medicine (M.D.), Master of Surgery (Ch.M.), Master of Medical Science (M.Med.Sc.), and diplomas in Public Health (D.P.H.), Industrial Health (D.I.H.), Diagnostic Radiology (D.D.R.), Microbiology (Dip. Microbiol.), Dental Public Health (D.D.P.H.), Clinical Psychology (Dip. Clin. Psychiat.), Child Psychiatry (Dip. Ch. Psychiat.), Obstretics (Dip. Obst.) and Clinical Pathology (D.C.P.).

105. In addition to these formal postgraduate activities the Medical Faculty has been interested in the whole field of medical education after graduation. In 1944 the Report of the Inter-departmental Committee on Medical Schools[16] recommended that every medical student, after he has passed his formal examination and before he is admitted to the Medical Register, should be required to serve as a junior house officer for a period of twelve months in one or more approved hospitals. This recommendation became law in New Zealand in 1950 by an amendment to the Medical Practitioners Act. The decision as to the approval of hospitals for this purpose rests with the Minister, on the recommendation of the Medical Council, and the Deans of the two Medical Faculties are ex officio members of this Council. The primary motive for the introduction of this compulsory year was to ensure that the new graduate should be given the time and the facilities for the continuation of his education. The approved hospital should provide adequate library facilities, routine post-mortem examinations with clinico-pathological discussions in addition to attachment to a clinical team where full diagnostic procedures and discussions are available. Unfortunately, to begin with, the expanding house surgeon requirements of New Zealand with its wide distribution of small hospitals were so great that many hospitals without all these educational facilities were, and some continue to be, accepted for conditional registration purposes. However, the growth and development of many of the hospitals in the country over the past ten years or so is doing much to improve this pattern. Also, amending legislation has been included in the Medical Practitioners Act 1968 which gives the Medical Council powers to inspect hospitals

approved for the purpose, and if thought necessary, to recommend that an existing approval be revoked.

106. In 1943 the Medical Faculty decided to set up postgraduate committees in the parent Faculty and its Branch Faculties, following a conference in Auckland to discuss the question of post-graduate education in New Zealand and whether it should be a function of the University or the then New Zealand branch of the British Medical Association. It was decided that postgraduate teaching fell more within the province of the University of Otago. The Postgraduate Committees held regular meetings at the time and place of the annual meetings of the New Zealand Branch of the British Medical Association at which policies and plans were drawn up, and postgraduate courses for consultants and general practitioners were arranged at each centre.

107. In 1925 a conference was convened by the Vice Chancellor of the New Zealand University in Wellington to consider a plan submitted by Dr (now Sir) Douglas Robb for the formation of a New Zealand Postgraduate Federation, and this led in 1958 to the formation of the New Zealand Postgraduate Medical Federation.

108. The objects of the Federation are the encouragement, advancement and integration of all aspects of postgraduate medical education. More specifically the Federation is concerned with major policy decisions regarding matters jointly concerning the Postgraduate Committees of New Zealand; collaboration with the universities medical organisations, the Medical Association of New Zealand and the Royal Colleges of Surgeons, Physicians, Obstetricians and Gynaecologists, General Practitioners, the Australia and New Zealand College of Psychiatrists, the Department of Health and other Government departments, and other organisations concerned with postgraduate medical education in New Zealand; to assist generally in co-ordinating the activities of the member Postgraduate Committees in so far as they plan courses and visits by overseas and other lecturers. Detailed planning and arrangement of courses are in each case the responsibility of member Postgraduate Committees concerned, but the Federation is concerned with the early dissemination of the details of such activities in order to avoid duplication. It is also concerned with the administration of various grants, fellowships and lectureships.

109. In Auckland, the Postgraduate Committee of the Branch Medical Faculty changed its status in 1959 to become the Postgraduate Medical Committee in the University of Auckland, though it derives no financial support from the University and continues to depend on subscriptions from the Auckland Postgraduate Society, fees from courses and money donated from other sources. This Committee, which has a wide representation of medical interest, runs a comprehensive programme of specialist and general courses, often with overseas visitors as guest lecturers, as well as annual courses in basic medical sciences, advanced medicine designed for candidates for the M.R.A.C.P. examination, advanced surgery, pathology, radiology, anaesthetics and ophthalmology.

110. The Committee has also organised a series of lectures in the relevant basic sciences and in psychiatry and neurology, in connection with a new registrar training scheme now available in Auckland for psychiatrists. This scheme, which has just begun in 1969, has a three year programme involving rotation between the psychiatric unit at Auckland Hospital and Oakley, Mangere and Kingseat Hospitals. An intake of approximately five registrars each year is contemplated, and

in the three years' programme each trainee will have had experience in all the major aspects of psychiatry.

111. The Postgraduate School of Obstetrics and Gynaecology in Auckland runs various courses and training programmes including courses for the Postgraduate Diploma in Obstetrics, University of Auckland, a full training programme leading up to the M.R.C.O.G. qualification for both New Zealand overseas graduates, short term refresher courses for general practitioners and week-end courses at provincial centres.

112. Medical education and research in hospitals was encouraged in 1966, by an amendment to the Hospitals Act 1957, included in the Hospitals Amendment Act 1966. This added as an additional function of the Minister "To encourage the provision and maintenance by Hospital Boards, to such extent as he considers necessary, of services and facilities for the advancement of medical education and research at or in connection with hospitals".

NURSING EDUCATION

113. It is salutary to consider the past development of schools of nursing in New Zealand. They have largely sprung up in terms of expediency, and based rather on nursing service demands than on educational opportunities.[17] Formerly this may have been justifiable because of the geographical features peculiar to New Zealand, the small scattered population and transport difficulties. Today it can only be regarded as wasteful of resources, particularly in relation to qualified staff.

Basic Programmes

114. There are at the present time in New Zealand a total of 62 schools offering 139 basic nursing programmes. Thirty-one schools of nursing offer a three year general programme leading to registration as a nurse and maternity nurse, and of these one has over 1,000 daily average occupied beds, four have over 500, four over 300, ten over 200, seven over 100 and five under 100 average occupied beds. Ten schools offer a three year programme for male nurses, eight a three year programme for pshchiatric nurses and four a three year programme for psychopaedic nurses. Forty-six schools offer eighteen months' courses for community nurses, and nineteen offer courses of a similar length for maternity nurses. There are three post-registration courses of six months' duration leading to registration as a midwife. In 1967 candidates registering from the different programmes numbered 1,058 for general nursing, 6 for male nursing, 58 for psychiatric nursing, 26 for psychopaedic nursing, 514 for community nursing and 161 for maternity nursing. The total number of students enrolled in these six programmes was 6,637 at the end of 1967, including 4,299 taking the general nursing programme.

115. Post-certificate courses leading to a certificate recognised as an additional qualification by the Nurses and Midwives Board, and lasting 4–6 months include 4 months infant welfare courses (Plunket Society) and 6 months courses in psychiatric nursing, operating theatre nursing, intensive care nursing, plastic surgical nursing, neurosurgical nursing, cardiovascular and thoracic nursing, and orthopaedic nursing.

116. All nursing programmes have an almost complete "hospital" orientation and with the exception of the 6 months post-certificate course in psychiatric nursing, all are service-based programmes, the students in them being responsible for a very high percentage of nursing service. In

the existing three year programmes it is not possible adequately to prepare nurses for first level positions in a comprehensive nursing service in which they are required to assist in a responsible way to promote health, prevent illness and care for the sick.

117. The New Zealand Postgraduate School for Nurses, Wellington, which has been in existence for over forty years, runs a nine months' course leading to the New Zealand Diploma of Nursing, the aim of which is to prepare nurses for leadership positions in the fields of hospital nursing, public health nursing and nursing education. Short courses for tutors and senior nursing personnel are also conducted.

118. The Postgraduate School for Nurses has maintained its link with Victoria University and time spent in university studies is increasing. The occasional student has completed an Arts or Science degree. Others have units towards degrees and are encouraged to continue their university studies while attending the School.

119. Very little research has been undertaken in nursing education to provide significant data for future planning. There is a dearth of nurses in New Zealand suitably equipped to undertake independent research studies of the required standard.

120. Most schools of nursing are operated by Hospital Boards or by the Department of Health, and two belong to private hospital organisations. In no hospital school of nursing is there a separate budget for nursing education. Precise assessment of the cost of nursing education is therefore not readily obtainable.

121. Students, with the exception of those at the New Zealand Postgraduate School for Nurses, receive salaries for which their employing agencies naturally expect a substantial quantity of nursing service. Postgraduate School students are paid a bursary for which they are "bonded" to sponsoring agencies for two years.

122. In all programmes apart from those at the Postgraduate School for Nurses and the post-certificate course in psychiatric nursing, there are serious restrictions on what it is possible to teach or learn because of the large amount of hospital nursing service given by students in excess of their preparation and because the orientation is towards giving this service.

123. Within the present system of nursing education it is not possible to incorporate the recent major advances in knowledge in general and specifically in medical knowledge and the effect on nursing practice. In spite of the outstanding efforts of the staffs of schools of nursing, the gap between new knowledge and its practical application appears to widen rather than decrease. The students' orientation to nursing is predominantly physiological with insufficient emphasis on the social aspects. Perhaps too narrow an emphasis is placed on efficiency and technical competence in supplying the essential hospital service.

124. The clinical content of programmes is largely geared to the nursing service demands of the employing hospitals. Student allocation to clinical areas is arranged by nursing service personnel rather than by those responsible for the students' educational programme. As a result theory and practice are often divorced.

125. The quantum and variety of clinical experience are adequate in the larger schools, but a number of schools of nursing offering a three year programme have insufficient clinical material available when measured on a patient/nurse dependency rating, as has been done

during the past three years. For this reason the General Nursing Council of England and Wales has declined reciprocity for students from a number of New Zealand schools of nursing who are required to undertake further periods at approved major schools to gain the necessary experience.

126. In the clinical field nursing service tends to take precedence over nursing education; many students are required to take responsibility beyond their preparation and much of this care tends to be under-supervised because of the small number of qualified tutors employed and the high percentage of nursing service required of students on afternoon and night shifts when supervision by qualified ward staff is often deficient.

127. There are approximately 6,770 nursing students in the six types of basic nursing programmes. Of the 2,900 students entering basic nursing programmes each year, approximately 45 percent fail to complete these programmes for four main reasons—study problems, marriage, dislike of nursing and personal or family grounds. Inability to cope with study appears to be related to the high level of responsibility carried by students and to the limited time devoted to theoretical and clinical instruction.

128. Some hospital administrations are now encouraging married students to complete their programmes but in many schools little encouragement or consideration is given to married students in the way of administrative reorganisation to suit them.

129. Few males enter general nursing in New Zealand, there being fewer than 0.3 percent of these students in training last year. By contrast, in the psychiatric nursing service a substantial proportion of students and an even higher proportion of qualified staff are men. Traditional attitudes appear to play a major role in these differences.

130. Many classrooms are inadequate, leading to considerable difficulty in teaching. Library facilities in most schools of nursing are well below those required for their present purposes and there are inadequate library grants. With so many schools endeavouring to provide three year programmes there is inevitably some uneconomic duplication of facilities.

131. Nationally there is a marked shortage of tutors although a few schools have reached the present recommended ratio of one tutor to 20 students. Many tutors are inadequately prepared for their work by present day standards and in fact only 40 percent of tutors have the New Zealand Postgraduate Diploma of Nursing or its equivalent which is regarded as the acceptable qualification for nursing tutors. For many, teaching is not their prime choice and there is a considerable turnover of teaching staff. The present career structure leads to tutors seeking promotion to nursing service positions where salaries are more attractive. The duplication of programmes is wasteful of qualified tutors, and a reduction in the number of schools of nursing would largely help to overcome the tutor shortage.

132. Present policy regarding student residence is towards students living in the nurses' home during the first year of training, and third year students being encouraged to live out in private accommodation. In fact, a fairly high percentage of students live away from the nurses' home for at least one year of training.

OTHER OCCUPATIONS AUXILIARY TO MEDICINE

Physiotherapy

133. The New Zealand School of Physiotherapy, Dunedin, is administered by the Otago Hospital Board. The course of training is of three

years and the required educational standard for enrolment is University Entrance certificate. The first two years of training are undertaken at Dunedin and during the third year students may be located at subsidiary schools at Auckland, Hamilton, Palmerston North, Wellington and Christchurch. Up to 70 students, including four admitted under external aid schemes may be enrolled annually for training. No salary is paid during the first and second years of training but in their third year students receive a modest salary. Total fees for the course are approximately $200. The Department of Health awards 50 bursaries each year for physiotherapy training, these being tenable over the first two years. Bursars enter into a bond to provide two years service, at the direction of the Department, after qualification.

134. The Physiotherapy Board controls the training, examination and registration of physiotherapists. Work connected with the Board's functions is carried out by departmental officers in the Department of Health's Physiotherapy Section who also provide service on all matters relating to physiotherapy.

135. Physiotherapy Departments are established at 59 general hospitals, 1 psychiatric hospital, 1 psychopaedic hospital and 1 industrial health clinic. Part-time services are given at 24 maternity hospitals. Total staff in hospital employment is approximately 250, some 25 percent short of the established need. Service other than for Hospital Boards is provided by private practitioners.

Occupational Therapy

136. Occupational therapists are trained at the New Zealand School of Occupational Therapy at Oakley Hospital in Auckland administered by the Division of Mental Health. A subsidiary Training School has been opened at Christchurch and here some students spend the second year of their three years' training course. The school has two intakes of 24 students each year, and approximately 100 students are at present training, during which they receive a salary from the Department of Health. In return they are required to work in New Zealand for a two year period after qualification.

137. The Occupational Therapy Board is a statutory Board which functions within the Department of Health and is serviced by the staff of the Occupational Therapy Section of the Department who also provide service on all matters relating to occupational therapy. The Board controls the training, examinations and registration of Occupational Therapists.

138. Occupational Therapy Departments have been established at 35 general and special hospitals, 7 psychiatric hospitals and 4 psychopaedic hospitals throughout the country; at 10 other hospitals, departments are temporarily closed due to lack of trained therapists, or are staffed only by aids or craft workers.

Radiography

139. The qualifications available for radiographers are the Diploma in the Section of Radiography issued by the Society of Radiographers (London) or the Certificate of Proficiency in Radiography issued by the Conjoint Board of the College of Radiologists and the Australasian Institute of Radiography.

Training schools for the Diploma of the Society of Radiographers are at Auckland, Hamilton, Palmerston North, Wellington, Christchurch

and Dunedin Hospitals, while tuition for the Australasian qualification is by correspondence.

The courses leading to these qualifications are undertaken while in full-time employment as student radiographers.

Laboratory Technology

140. To become a Medical Laboratory Technologist it is necessary to complete a course of training in an approved laboratory and to pass the Certificate of Proficiency in Hospital Laboratory Practice. The examination for the Certificate of Proficiency is conducted by the Department of Health using the services of the Medical Laboratory Technologists Board which prescribes the rules for training and for the examination. Training laboratories are approved by the Director-General of Health and fall into two categories:

(i) Medical laboratories under the immediate control of a pathologist and with an adequate range and volume of work are approved for training for the whole course up to the final Certificate of Proficiency level, and

(ii) Medical laboratories under the immediate control of a Medical Laboratory Technologist and with an adequate range and volume of work, which are approved for training up to the Intermediate Examination level.

141. Approval was given by the Department of Health in 1968 for the Institute of Medical Laboratory Technologists to provide a course of training for Medical Laboratory Assistants and to conduct examinations.

Orthopaedic Technology

142. A training course in the combined fields of surgical footwear and orthopaedic appliances was introduced in 1968 and provides for training in two phases:

(a) A three year training course in basic skills, and

(b) A further course of two years in the application of these skills.

The training is controlled by a central committee consisting of representatives of the New Zealand Orthopaedic Technicians' Association, the New Zealand Orthopaedic Association and the Department of Health.

Examinations on a national basis will be held at the end of each period of the course, which is studied during normal whole-time employment in recognised hospitals.

Dietetics

143. Auckland, Wellington, Christchurch and Dunedin Hospitals provide training courses for dietitians. Over recent years, the average intake of students has been 18 per year; indications are that this number is on the increase, the intake for 1969 having risen to 24. The course is a post-graduate one, the prerequisite being a degree or diploma in Home Science, or equivalent. It is of twelve months' duration; a minimum of ten months is spent in the principal training school and not less than one month at a subsidiary training school. These subsidiary schools are hospitals that are currently approved by the Dietitians' Board as being suitable for limited training, and include those hospitals under the same Boards as the principal training schools, and the Nelson Hospital.

Pharmacy

144. Students spend two years at the Pharmacy School at Petone and having completed the examination at the end of the course, then serve

an apprenticeship of two years before applying for registration. This apprenticeship can be served as a paid employee of a Hospital Board. As from 1969 onwards, the course at the school has been extended to three years.

145. The Minister of Health in 1968 set up a Special Committee on Hospital Pharmacy, to inquire into and consider pharmacy services in hospitals under Board control, and included in its terms of reference was consideration of the standard of education required by a hospital pharmacist. This Committee submitted its report to the Director-General early in 1969.

HOSPITAL STATISTICS

146. A statistical survey and statistical tables is published annually by the Department of Health in the "Hospital Statistics of New Zealand", a supplement to the Annual Report of the Department, compiled by the Division of Hospitals chiefly from annual returns furnished by Hospital Boards. This supplement contains detailed statistics of institutional beds, patients and inmates during the year, the work of special departments, staff of hospital Boards, payments to Boards, loans for capital purposes, administration, ambulance services, domiciliary services, and other statistics relevant to the services provided by Hospital Boards.

147. Statistics on *length of stay* of patients in hospitals, for 50 groupings of the International Code of Diseases are compiled by the National Health Statistics Centre of the Department of Health, and published annually under the title "Medical Statistics Report, Part III, Hospital and selected Morbidity Data".

From 1955 to 1965 the average stay per patient decreased steadily from 22.8 to 17.0 days, but this in part is a reflection of readmissions and interhospital transfers because in the same period the number of deaths and discharges per 100 of mean population increased from 7.31 to 8.4.

148. *Statistics of Waiting Lists* have been included in one of the tables published annually in the "Hospitals Statistics of New Zealand" supplement to the Department of Health's Annual Report since 1967, but these statistics unfortunately do not reveal the actual length of time spent in waiting for hospital admission. Figures of waiting lists over the past three years are shown in the table below. The waiting list is essentially composed of elective surgical cases for which no indication for immediate and urgent surgical intervention is present and in which there is often a considerable element of patient convenience involved. The column "General Surgery" includes the more common specialities such as gynaecology, orthopaedics, genito-urinary, ophthalmology and oto-rhino-laryngology. The commonest conditions on the list awaiting surgical correction are hernias, varicose veins and tonsils and adenoids.

Waiting Lists as at 31st March Each Year

Year	General Surgery	Plastic Surgery	Neuro-Surgery	Cardio-Thoracic Surgery	Total
1967 ..	30,106	1,631	60	131	31,928
1968 ..	29,544	1,980	61	96	31,681
1969 ..	35,637	2,270	55	202	38,164

149. The question of hospital waiting lists is one which has concerned both Hospital Boards and the Department of Health for a number of years and sustained efforts have been made to reduce these by a variety of measures including the institution of day-patient care, out-patient surgery and concentrated attacks in particular specialist fields. Also regular revising and reassessment of the lists themselves has helped to give a more realistic picture of the problem. Since waiting lists are essentially surgical, it is obvious that the problem is not entirely one of lack of beds, but embraces a much wider field including adequacy of operating theatre facilities and efficiency of their usage, availability of surgical specialists and anaesthetists, length of stay of patients in acute beds, etc. All these aspects of the waiting list problem require further detailed study and research before any permanent solutions can be recommended. In paragraphs 283–285 reference is made to some ways of easing the situation, but it must be appreciated that although public attention has been focused on hospital waiting lists, the complete absence of such lists would in fact indicate an over-provision of hospital beds.

150. An important point to note is that urgent cases, accidents and other emergencies are always admitted to hospital immediately, and a not inconsiderable part in this apparent continuing shortage of beds can be blamed on the continuing pressure on operating and accommodation facilities resulting from the rising toll of road accidents over recent years. The constant pressure of these unpredictable emergency demands greatly impedes the operation of a planned "waiting list" schedule in some high accident areas. However, in the light of the apparent increase in waiting-list totals in the twelve months 31 March 1968 to 31 March 1969, a critical examination of waiting-list practice is being undertaken by a team from the Department working in conjunction with Boards' officers in a broad sample of the major hospitals. It is expected that from this an effective uniformity of practice will evolve.

151. *Out-patient Statistics* are also published in the Department's Supplement to the Annual Report, and the figures for the five years 1964–65 to 1968–69 are shown below:

Year	*Total Out-patients Attendances Including Dental*
1964–65	2,476,720
1965–66	2,770,177
1966–67	2,807,456
1967–68	3,011,462
1968–69	3,045,611

152. These figures show the rising number of patients attending the out-patient departments of public hospitals, but give no indication of how much delay occurs between referral and first appointment at the out-patient clinic, nor how much time is wasted in waiting rooms. A survey of Out-patient Services in Public Hospitals in New Zealand was made by a Special Committee set up in 1957 by the Board of Health, and its report was published in March 1960.[13] Some of its findings have already been incorporated (see paragraphs 79–81). With regard to the average time patients have to wait in out-patient departments with or without an appointment, before receiving attention, the Committee found

that the average time reported from the 42 hospitals which supplied returns varied from 5 minutes to 30 minutes, and in one case up to 60 minutes, before patients were interviewed or examined. These figures do not of course refer to casualties and emergencies which are seen immediately on arrival and which should not, in any case, be categorised as "out-patients".

CHAPTER III: TRENDS IN HEALTH SERVICES

153. The previous chapter has dealt with hospital facilities and services as they exist in New Zealand today; this chapter will be devoted to a survey of some of the general trends which in the Department's view are likely to influence forward planning and policy-making in hospital provision in the future.

154. Some of these trends are of local application, affecting New Zealand of itself, including such matters as population growth, projected shifts of population, age structure and the like. Others of a wider nature are trends affecting many countries in the world which have reached a comparable stage of development: with similar morbidity figures relating to such diseases as tuberculosis, cancer, degenerative diseases of the heart and blood vessels, chronic renal failure, stress conditions, addiction to drugs and alcohol, and the growing importance of some of these conditions and of accidents as causes of morbidity and mortality, and with a parallel decline in the importance of other conditions including the epidemic infectious diseases, as causes of ill-health and death.

155. Again, the rapid advance of what has been called the technological revolution, and the growth of specialisation in all fields of medicine have led to new procedures being developed which are continually being improved and perfected. In consequence concepts of the practice of medicine are being radically altered.

The advent of the computer and its application to various facets of hospital administration and patient care is already making an impact on present thinking upon practice and forward planning, and its place in the future hospital complex has yet to be determined.

156. In the field of mental health advances in psychiatric knowledge during the last twenty-five years have been very rapid, probably more than at any previous time in the history of the specialty. One consequence of this has been some narrowing of the gulf previously existing between the psychiatric hospital and the community that it serves. Another, and very valuable, effect has been to bring psychiatry more closely into touch with general medicine than was the case at any time in the preceding half century. At times differences of opinion between psychiatrists and other doctors still occur, these being at least in part a result of the long-standing distinctions which have been drawn between the care for the physically and mentally ill. There is no doubt that both psychiatry as a specialty and medicine as a whole, have suffered undesirable results from this separation.

157. These trends, viewed with the changing public attitude to medical care, and the demand for hospital services, and balanced against the rising cost to the State of providing such services, have required a critical reappraisal before reaching any policy decisions on future development of the hospital services in this country.

Population Trends

158. Population projectures to 1986 have been prepared by the Town and Country Planning Branch of the Ministry of Works [18] using the

1966 census as a starting point, the 1965 birthrate, and a net gain from immigration of between 12,000 and 13,000 per annum. Further information on Trends in Health and Health Services is to be found in the Department of Health's publication under that title published in 1968.[19]

159. For many years the population of New Zealand increased by well over 2 percent per year, but since 1961 the effect of a falling birth rate (26.99 in 1961 to 22.60 in 1968) accompanied by less net gain from the balance between immigration and emigration has reduced the rate of increase to below 2 per cent. However, the rate of increase in the Maori population has been consistently twice that of the European population reaching close to 5 percent in 1961 and 1962. The birth rate for Maoris in 1968 was 37.97 per 1,000 population compared with the European rate of 21.29.

160. These trends have called for a careful reassessment of the requirement for and distribution of obstetric beds throughout the country, since 99.5 percent of all deliveries in New Zealand (1966 figures) take place in hospitals. Another factor which presents a serious social problem is the rising number of illegitimate births, especially amongst teenagers. New Zealand's percentage of illegitimates among all live births of 11.6 places her among the highest in the world.

161. During the nineteenth century considerable population gains came from immigration, but although this still plays a part, natural increase is currently the main source of population growth. The table below gives a summary of past trends with estimates for the years 1971, 1976 and 1986.

Census	Population	Inter-censal Numerical Increase 1961–66	Average Annual % Increase 1961–66	Year	Population	Numerical Increase	Average Annual % Increase
New Zealand:				1971	2,948,890	277,972	2.0 (1966–71)
1961	2,414,984			1976	3,283,330	337,740	2.2 (1971–76)
		261,935	2.11				
1966	2,676,919			1986	4,068,480	718,850	2.2 (1976–86)
North Island:				1971	2,166,720	277,131	2.3 (1966–71)
1961	1,684,785			1976	2,388,410	271,690	2.5 (1971–76)
		208,541	2.40				
1966	1,893 326			1986	3,034,010	645,600	2.4 (1976–86)
South Island:				1971	832,170	50,841	1.2 (1966–71)
1961	730,199			1976	898,220	66,050	1.5 (1971–76)
		53,394	1.44				
1966	783,593			1986	1,034,470	136,250	1.4 (1976–86)

162. New Zealand, as with many countries of the world has for some time experienced an "urban drift", and also a well-defined drift of population from the southern parts of the country to the northern. These migrations cause some changes in levels of health, and concomitant changes in the health services.

163. Projections have been prepared for each territorial local authority, by the Town and Country Planning Branch of the Ministry of Works under the assumption that:

(i) Rural depopulation is likely to continue, though at a gradually less marked rate.
(ii) The major urban areas will continue to increase in population at a high rate.

Wherever it has been considered necessary, the estimates for each local authority have been adjusted to past trends and the age and sex structure of the local population, and by allowing for the likelihood of any significant economic development.

164. These projections show a marked rise in the populations of the following regions, with a consequent need for increased hospital facilities in them:

Region	Population (1968)	Estimated Population in 1986	Average Annual % Increase
1. Auckland ..	612,376	1,160,690	3.2
2. Bay of Plenty ..	150,328	267,550	2.9
3. Wellington ..	296,156	498,350	2.6
4. Waikato ..	196,115	292,000	2.0
5. Christchurch ..	254,271	379,150	2.0
6. Northland ..	93,199	132,800	1.9
7. Southland ..	105,971	153,190	1.9
8. Manawatu ..	106,540	156,710	1.9

Age Structure

165. The age structure of the two major ethnic groups in the community are different, and both are changing. At the turn of the century the effect of immigration on the age-structure of the European population could be plainly seen. There were many young and few old people in the community. By 1906, the percentage of school children and teenagers had fallen, as had the percentage of people in the early working years. There was an increase in the percentage in the later working years and a doubling of the percentage of retired persons. The age-structure since then has also been influenced by the deaths of adult males in the two World Wars, the low birth rates during the economic depression of the early 1930's and the high birth rates following the Second World War.

166. In comparison with the growing percentage of the older aged group in the European population, the growth in the Maori population during the last fifty years has been at the other end of the age scale. Such has been the increase in the birth rate that the proportion of old people has been cut by more than half despite an increase to nearly double their number.

167. The steady increase in the numbers and proportion of the population aged 65 years and upwards has placed a considerable burden on the hospitals and social services and one likely to continue. The greatest increase has been among those in the oldest age groups, 75 to 84 years and 85 years and upwards, and the longer life expectancy of women has resulted in a gradual change in the proportion of elderly women to elderly men.

168. Prediction of age-structure in different areas of the country is extremely difficult due to lack of precise knowledge of the internal migra-

tion pattern. In general, fast growing areas such as those shown in the table above, can be expected to have a relatively young population, and areas which are static or declining, to have a relatively older population. As the hospital needs of the elderly are relatively high, bed needs based on total population vary accordingly. Fortunately, if population growth is unpredicted, there is some consolation in the thought that this will have been due to an unexpected influx of the young and fit, who have a comparatively low requirement of hospital accommodation for other than maternity needs.

169. No predictions of age structure in different local authorities are made by the Ministry of Works or the Department of Statistics, and each problem involving age structure has to be treated on an ad hoc basis relying on past trends and expected growth factors.

Morbidity and Mortality Trends

170. There has been a very considerable fall in both the European and Maori rates of dying over the last 50 years, the decline in the Maori rate being steeper than the decline in the European rate, though the all-ages Maori standardised death rate is still approximately twice that of the European.

171. The infant mortality rate (the number of infants under one year of age who die each year per 1,000 babies born alive) is an internationally accepted measure of the general level of health and standard of health services in a community for the reason that it is influenced by such diverse factors as the standard of antenatal services, obstetrics, nursing and post-natal care, personal hygiene, nutrition, environmental conditions and general living standards. Since the turn of the century the infant mortality rate for Europeans has dropped from 74.8 per 1,000 live births to 16.1 per 1,000 in 1966. The Maori rate, available first for 1931–35, dropped from 94.8 at that time to 28.0 in 1966. The principal reduction has occurred in the post-neonatal group (between the 28th day of life and one year of age) due to a reduction in epidemic diseases, respiratory and gastrointestinal infections. A considerable reduction has also occurred in the neonatal group (within the first 28 days of life) which is chiefly influenced by ante-natal, obstetrical, and nursing care and by developmental conditions in the infant.

172. Between the ages of 1 and 44 years there are fewer European deaths occurring annually today than there were in the early part of the century, despite there being treble the number of people in the present-day population. In the Maori population the absolute numbers of deaths in each year are also significantly less than those registered forty years ago.

After the age of 45 the absolute totals of deaths registered per year in the periods covered have risen considerably in each race, illustrative of the transference of deaths from the younger ages to the older due to better preventive measures, improved diagnosis and advances in medical and surgical therapy. Better home environment, improved working conditions and a higher level of nutrition have also played a part, more so in the Maori population than in the European.

173. There have been marked changes in the incidence and prevalence of diseases causing sickness and disability during the past fifty years. Some notifiable diseases, such as poliomyelitis have been eliminated by immunisation programmes and others such as diphtheria have been essentially controlled.

The incidence of and mortality from tuberculosis have been falling to one-third of the level of thirty years ago although the number of new cases discovered each year remains around the one thousand mark. This improvement has been associated with better contact tracing and mass miniature radiography. Improved sanitation and the innoculation of children in rural communities particularly in Maori communities, and the introduction of combined diphtheria, tetanus and pertussis vaccine has resulted in a fall in the incidence of tetanus. The reduced incidence rates of hydatid disease especially in young children during recent years is an indication of the success of campaigns for the eradication of this disease. However, some other notifiable diseases have shown an increase during recent years, for example meningococcal meningitis, bacillary dysentery, salmonellosis, leprosy, leptospirosis and infective hepatitis.

174. With improved environmental factors, the incidence of, and mortality from, tuberculosis has been falling for some decades. Notifications of respiratory tuberculosis have shown a decrease of 55.7 percent between 1951 and 1966 and the death rate has fallen from 62.8 to 3.7. The most impressive feature has been the abrupt fall in the death rates at younger ages, referable to effective chemotherapy and B.C.G. vaccination programmes.

175. This fall-off in both numbers and period of hospital stay in tuberculosis, together with the ready control of infections through a wider range of antibiotic drugs, and by improved follow-up and contact procedures, and the elimination of maiming diseases such as poliomyelitis, has resulted in a substantial reduction in the average stay of patients in hospital since 1953, especially in the age groups 5–14 years and 15–44. Special hospitals for the treatment of pulmonary and non-pulmonary tuberculosis and infectious diseases have virtually disappeared, and the beds previously used for such cases are now occupied by patients suffering from other diseases, the incidence of which has increased during the same period. These include such conditions as cancer, degenerative diseases of the cardio-vascular system including coronary artery disease, chronic renal failure, and the results of accidents, and of the misuse of alcohol and latterly of drugs.

176. These changes in morbidity trends have resulted in a greatly altered pattern of bed requirements in the hospital service, for different age groups.

177. At pre-school age (0–4 years) the virtual elimination of the epidemic diseases scarlet fever, diphtheria and poliomyelitis has been a feature of modern times. Measles still remains a hazard, and inflammatory infections of the meninges and the brain are more commonly diagnosed today, as is malignant disease. Hospital treatment for enlarged tonsils and adenoids and skin diseases has shown a downward trend, but there has been a steadily rising incidence over the years of fractures, dislocations, burns and poisoning cases requiring treatment in the paediatric departments of public hospitals.

178. At school ages (5–14 years), there has been an appreciable decline in the proportionate numbers of school children hospitalised, largely due to the lowered incidence of epidemic and infectious conditions, and the increased number of children being treated at home by modern drug therapy. There have, however, been disproportionate increases in hospital admissions since 1944 in respect of cancer, benign tumours, eye conditions, congenital malformations and the effects of poisons and miscellaneous injuries, especially head injuries.

179. At adolescent and early adult ages (15–24 years) there has again been a marked fall in the admissions for treatment of tuberculosis, and scarlet fever has virtually disappeared. Relatively fewer beds are occupied today by sufferers from rheumatic fever, goitre, ear and mastoid infections, pneumonia, pleurisy, renal diseases, and osteomyelitis, but more are necessary for the treatment of hepatitis, glandular fever, diabetes, psychiatric illness and the complications of pregnancy. Various injuries, fractures, the effects of poisons, and abortions add their quota.

180. At middle working ages (25 to 44 years) the picture is one of a reduced incidence of admission to hospital, the conditions contributing to this decline being mainly tuberculosis, venereal diseases, rheumatic fever, bronchitis and pneumonia, enlarged tonsils and adenoids and stomach and duodenal ulcers. On the other hand relatively more patients are hospitalised today at these ages for treatment of cancer, benign tumours, diabetes, alcoholism and all types of psychiatric disorder, heart disease, varicose veins and haemorrhoids, diseases of the breast, menstrual dysfunctions, complications of pregnancy and childbirth, the effects of poisons and miscellaneous types of injury.

181. At retirement ages the hospital picture is dominated by the degenerative conditions, arteriosclerosis with its attendant heart disease, and cancer of various sites. Although the numbers of the population at risk in this age group comprise only 8.3 percent of the total population, one hospital bed in every four is occupied by a person from this group. There have been heavy increases in the past twenty-five years in the proportionate numbers of patients admitted for treatment of such conditions as diabetes, anaemia, arthritis and orthopaedic conditions (especially fractured neck of the femur): in fact the incidence of very few conditions has receded. The result has been that there is a serious shortage of geriatric beds throughout the country, with a consequent loss of acute beds to long-stay geriatric patients.

Trends in the Provision of Specialist Services

182. This changed pattern of disease incidence has affected the pattern of certain hospital services during the past three decades. For example the former tuberculosis specialist, because of the great fall in incidence of tuberculosis has been able to turn his skills to the diagnosis and treatment of a much wider range of chest diseases. The rapid advances made in the technological field have resulted in a very rapid increase in the use of laboratory and X-ray facilities for the diagnosis of many diseases. During the past fifteen years pathological tests done in the laboratories of public hospitals have risen by 459 percent, and X-ray diagnostic examinations by 65 percent.

183. The increased incidence of heart diseases, especially coronary artery disease, has led to the development of special departments to deal with the diagnosis and treatment of these conditions: special cardiac X-ray units for heart catheterisation and other specialised techniques, open heart surgery units for the surgical treatment of cardiac conditions, and coronary care units where patients are admitted for investigation and treatment with the aid of specialised monitoring and resuscitative equipment.

184. Similarly the increased incidence of cancer especially cancer of the lung, has stimulated intensive research in this field, and the development of treatment by radiotherapy, has resulted in the establishment of special radiotherapy departments at a number of major hospitals.

185. Advances in the treatment of chronic renal disease have likewise been responsible for the introduction of special dialysis and kidney transplant units (see paragraph 65 (b)).

186. These rapid and radical changes and advances in diagnostic and therapeutic methods have required the replanning or even rebuilding of specialist departments in public hospitals. As already stated (see paragraph 66), new clinical services departments have had to be provided at many hospitals to house these developing services and the complicated and expensive equipment required.

187. In addition, the greatly increased incidence of injuries of various kinds, including fractures, plus the greater numbers of geriatric patients suffering from arthritic and rheumatic conditions, has led to a steady development of rehabilitation services and facilities, aimed both to speed the return of patients to work and to free badly needed hospital beds for further cases. Physiotherapy and occupational therapy departments have therefore been or are being developed, and accommodation for them has had to be provided plus the necessary staff.

188. Out-patient attendances at public hospitals have continued to rise steadily each year, the total in 1948 being 1,171,245 compared with the 1968 total of 3,011,462. This has made necessary a re-appraisal of the casualty and out-patient facilities provided at these hospitals.

189. Another service certain to develop further in the near future is pre-symptomatic diagnosis by screening techniques designed to detect abnormalities or disease conditions before they have become evident to the individual. A few diabetes surveys have been done and rapid advances have been made in the development of clinics for the routine examination of cervical smears to detect early cases of carcinoma of the cervix, and these latter facilities are now available in most areas.

190. Another screening technique which has been adopted on a country-wide basis is the use of the Guthrie test for the detection of phenylketonuria in newborn babies. All babies born in hospitals in the country have specimens taken for examination at a National centre in Dunedin, run in conjunction with the Human Genetics unit there. In addition to the routine testing for P.K.U., research work will also be done in the detection of other metabolic disorders.

191. Medical practitioners have also been recently circularised by the Department of Health on screening techniques which are advocated for the early detection of congenital dislocation of the hip in the newborn infant, and proposals are under consideration for the inclusion in a revision of the Obstetric Regulations, of the notification of "high risk" babies, i.e. babies with a reduced expectation of survival during the first four weeks of life, and also newborn infants suffering from congenital abnormalities.

192. The use of mass miniature X-ray facilities for the early detection of pulmonary tuberculosis has now passed the peak of its usefulness as far as mass surveys are concerned. The tendency now is to confine the use of this equipment to groups of people at special risk.

193. In the field of obstetric care the aim is to ensure that a comprehensive service is available to all women provided by an obstetric team, to whatever extent her condition warrants. The team would include the general practitioner, the obstetric specialist, the anaesthetist and the paediatrician. Confinement should take place in an adequately staffed and equipped hospital with the assurance of ready availability of

consultant services and where necessary of provision for transfer to a specialised obstetric unit in the event of any abnormality of pregnancy.

194. Existing obstetric services in New Zealand are at present inadequately co-ordinated, and there is need for a planned service in each area of the country. Whether such areas would correspond to Hospital Board districts or to a regional grouping of these is not yet apparent. A survey of existing obstetric facilities throughout New Zealand is being carried out by the Maternity Services Committee as a first step towards a future reorganisation of these facilities.

195. All these changes in the pattern of hospital services and facilities have led to a new pattern of hospital staffing. The number of medical staff employed by Hospital Boards has risen from a total of 1,196 full-time and part-time staff in 1957, to 1,923 in 1969. It is interesting to record that the data in the 1968 Report of the Medical Council of New Zealand[20] showed that at the time of the survey, 3,428 doctors on the Medical Register had a New Zealand address, and of this number, 3,203 were actively practising their profession.

196. Nursing staff employed by public hospitals has nearly doubled in the period 1952 to 1967. The totals for General Hospitals were 7,763 in 1952 and 15,183 in 1969 and of these, 5,919 were fully registered nurses and 9,264 other grades of nursing staff. In hospitals of the Mental Health Division the figures were 1,272 in 1952 and 2,468 (including 967 qualified staff) in 1967.

197. There have also been significant increases in the numbers of paramedical personnel, both professional and technical, employed by Boards during the past decade. In 1957 there were 1,295 such staff employed by Hospital Boards (including Dental Officers, X-ray and Laboratory Workers, Pharmacists, Physicists, Physiotherapists and Occupational Therapists, Orthopaedic Technicians, etc. In 1969 the total was 3,084, an increase of 138 percent. This reflects the growth and diversity of technical assistance now provided to the doctor in the investigation, diagnosis and treatment of patients.

198. Research, both within and without the medical field has led to procedures which were unheard of a few years ago. For example, space research has led to new studies of man's normal physiological processes which studies in turn, give an insight into the abnormal. At the same time electronic research has led to new ways, both complicated and expensive, of measuring physiological and pathological changes. All this demands more and narrower specialisation which in turn demands a team approach. In the past it was possible for a single doctor with the help of comparatively simple aids to investigate, diagnose and treat the majority of his patients. Now, if he is to bring the full resources of medicine to bear, he must share the task with specialists in many fields. All this gives a new focus to the practice of medicine and calls for modifications in the systems of delivering it.

199. As the Minister of Health stated in an address to the New Zealand Institute of Public Administrators' Convention of May 1968:

> "The introduction of automation and the computer into the hospital field and to some extent into the field of health generally, calls for a radical reassessment of relationships between the Department of Health and Hospital Boards and the general medical practitioner. Because of the size of this country and the expense of the computer, it is clear that joint use of these by Hospital Boards and the Depart-

ment of Health must be undertaken as far as possible. This subject has already been discussed by the Department with representatives of the major Hospital Board and agreement reached on steps to be taken. The Department has also formulated long-term plans for automation in the hospital and health fields. These will be subject to further consideration once the Director of its Research and Planning Unit returns from an overseas visit of investigation later this year.

Interesting experiments are being carried out overseas in the keeping of patient records for general practitioners on computers, patients being called for further interviews automatically by the computer, with the information collected and stored being used for statistical purposes and to check on use by doctors of ancillary services and to find out how often they investigate certain conditions of patients. The Department of Health in this country has already extensively investigated the possibilities of the use of the computer for pharmaceutical pricing."

Since then, a national Electronic Data Processing Committee (Health) has been set up, comprising members of the Hospital Boards' Association, the Medical Superintendents' Association, the State Services' Commission, the Treasury, and the Health Department.

200. The following extracts from Chapter 2 of the Report of the Royal Commission on Medical Education, 1965–1968, in Great Britain,[21] very adequately sums up the present situation:

"The use of automatic equipment and computers in medicine is still in its infancy and is likely to be developed widely and quickly both on the clinical and on the administrative side within the next thirty years. Such developments obviously offer beneficial possibilities but they raise important problems and their net effect will be advantageous only if they are properly used. Inevitably the doctor's approach to the individual will have to be highly organised and systematic if he is to make effective and economical use of these elaborate services. At the same time he will have to continue to make a distinctively human contribution to the process by approaching the case with imagination and by achieving a close personal relationship with the patient, eliciting information that no mechanical or organisational aid can provide. Apart from individual practice, the routine provision of co-ordinated screening devices involving the extensive use of computers will not only assist the early diagnosis of disease, but may incidentally provide background information of considerable value to the development of preventive medicine. Finally, the use of automatic systems of recording and retrieving information for administrative and research purposes is likely to be commonplace in all spheres of medical practice. Computers, with all their implications in terms of equipment, procedures and ways of thinking will play too large a part in the work of all doctors in the future to be left entirely to the expert: every doctor should at least learn to understand their basic principles and potentialities."

201. At the present time many of the applications of computer technology to medicine are in the research or exploratory phase of development. The feasibility of the use of electronic data processing and of data process control has been demonstrated, but for a number of reasons including the availability of staff and of suitable "software", it

could well be some years before a "total hospital information system" becomes a computer service.

202. In the hospital, computer programmes can successfully cope with payroll, stores inventory and general accounting services and some programmes are now used in hospital laboratory tests.

203. New machines which are expected to be commercially available within a year or so, will be capable of doing a large number of tests rapidly and accurately. Thus the technology which medicine is beginning to employ is likely to change the organisation of medical care as radically as the present and older techniques have done in the past.

204. Although it seems clear that shortly routine biochemical and haematological laboratory tests will be electronically performed and monitored, the use of electronic computers for the storage of medical records in a system capable of aiding patient care is probably several years away. Some of the difficulties yet to be faced are: satisfactory patient linking systems; the compilation of medical "dictionaries" for records; and decisions as to the content of the records themselves.

205. Many of the problems of hospital and health administrations are not peculiar to hospitals. It is expected that the computer will be used increasingly to serve as a tool of management in the hospital and health services.

206. New procedures resulting from research work in many different fields have been introduced for diagnostic and treatment purposes during the past decade, and others, still in their infancy, give promise of rapid development and wider application in the near future. As examples may be quoted the use of laser beams in surgery, the tele-endoscope, hyperbaric medical "systems", the use of the "hovercraft principle" in the treatment of burns, and the rapid advances which have recently been made in the use of ultrasonics.

207. Although the history of hyperbaric medicine (the use of gases at pressures above atmosphere in the treatment of disease) can be traced back for more than three centuries, it is only during the past decade that the importance of oxygen lack has been recognised as a complicating factor in a wide range of pathological states. Hyperbaric oxygen with its capability of increasing the concentration and pressure of oxygen in the body fluids, has therefore been studied intensively: and the equipment for these studies has developed along two lines, the large walk-in pressure chamber necessary where surgical treatment has to be carried out in a hyperbaric environment, and the small chamber for the individual patient, e.g. clinical, radiotherapy, neonatal and hyperbaric bed-systems.

208. In the ultrasonic field, ultrasound (i.e. sound waves of a frequency higher than can be detected by the human ear, which have the ability to penetrate human tissues) is being made use of in a variety of diagnostic procedures including obstetric diagnosis, the evaluation of peripheral vascular disease by the use of ultrasonic flow-detection methods, ultrasonic echo-encephalography, and the use of ultrasonic scanners to measure and record the shape and movements of organs, and dimensions of physiological structures throughout the body.

209. The fiberscope, consisting of bundles of fibres of optical glass, capable of transmitting light from one end to the other with scarcely any leakage even if bent considerably, has been developed for endoscopy work, and can be linked with a cine-camera or with television (black and white or colour) to provide clear and stable pictures for example of the

stomach lining. The apparatus can also be used for examination of the rectum, uterus, bladder or abdominal cavity, by changing the fiberscope.

210. These are a few of the new and rapidly developing technological fields which promise revolutionary changes in diagnostic procedures and treatment methods in the very early future.

Demand and Need in the Hospital Services

211. One of the most important trends is the growing awareness of the necessity to find some means of measuring need for hospital services. At first sight this might not appear to be difficult. If the incidence of a certain disease is known it should not be too difficult to provide the means of dealing with it. However, very few diseases have a clear starting gate, still less a definite finishing post. Most pathological processes start insidiously before a patient is aware of them and most, at best, can be controlled or modified rather than eradicated. Even when they can be eradicated the period of illness may have induced new strains in the patient, his family or social group. A distinction must be made here between need and demand. Need is an objective assessment by those who are considered, for the time being, most able to judge; demand is the subjective assessment of the individual or group and they cannot necessarily be equated. For example, at the present time in most developed countries there is a high "demand" often created in the most subtle fashion, for prescribing medicines of various kinds. It would generally be agreed by the medical profession that this demand exceeds the real need. One task of the central administration is, after wide consultation, advice and study, to gauge the real need and adopt policies to meet it rather than to attempt to satisfy an irrational demand often dictated by fashion or pressures and not directly concerned with the benefit of the public.

212. In the August 1968 issue of "World Health", the magazine of the World Health Organisation[22] these factors are discussed and summed up in an article "A New Pattern of Medical Care", which states, *inter alia*:

> "There has been a double revolution in the past twenty years or so: the technological revolution in medicine, and the revolution of expectations among people everywhere who want more and more of these costly services. Efficiency in using resources, even in the wealthiest countries is suddenly important in order to accomplish as much as possible with limited funds . . .
>
> In providing a health service, the starting-point must be a proper understanding of needs. Demand does not necessarily reflect the need for medical care. The problem of matching resources to need, if need is constantly expanding as new possibilities of treatment are discovered and more people seek treatment can be solved only empirically. A system of priorities must be accepted".

Public Attitude to Medical Care

213. Due to expanded means of mass communication and rising standards of education, the public are becoming increasingly exposed to information and viewpoints of very variable quality on a wide range of medical topics. Gone are the days when a doctor can rely on the mystique of his profession—a situation which, to be fair, had its own therapeutic value. Patients and relatives know sufficient of the mysteries

and superficial science of medicine to assume a more informed interest in their maladies. They, not unnaturally, seek explanation. This requires a different relationship between doctor and patient, and between the hospital as a whole and the public it serves. Public hospitals are no longer charitable organisations. With hospitals now financed wholly from the public purse, the patient's approach to many aspects of hospital care is properly that of the owner-occupier.

The Cost of Medical Care

214. Due to technological advances, the increasing possibilities of medical science improving performance and, therefore, increasing demands, the cost of providing medical care is rising rapidly. It is probably true to say that real needs, let alone demand, will always outstrip available resources of manpower and equipment normally quantified in terms of money. It is, therefore, becoming increasingly important that those resources be deployed economically if the principle of the greatest good for the greatest number is to be preserved. This means efficient organisation and even at times compromise with the ideal. Services which have served their term, while still not without some merit in themselves may nevertheless, even at the expense of offending interests vested in their retention, have to give way to newer services yielding more profitable return in terms of relief of human suffering. This will also involve rationing where if resources cannot meet total demands, they must be spread with the greatest degree of justice which can be attained. Perhaps the most difficult problem of all is the determination of priorities; of the routine *versus* the dramatic; the individual against the group. These are philosophical questions which are difficult to answer, but which must be kept in mind if developing plans and policies are to be kept in perspective.

Integration of Services

215. In the past there has been a tendency to divide medical care into watertight compartments—general practice; hospital care for the physically ill; hospital care for the mentally ill; and preventive medicine. We must now realise that hospital care of the patient and the overall organisation of medical care should be such that the transition into hospital and out again is smooth and continuous.

216. In New Zealand there has been a growing recognition of the need for a closer link between the work of the general and psychiatric hospitals and that of the general practitioner, and for fuller co-operation between Hospital Board extra-mural services and services provided by public health and mental health personnel. The need for a closer interdependence between the three branches of the medical services has been recognised in many other countries including the United States of America and the United Kingdom. In the latter, the Porritt Report[23] stated that health was indivisible and should be ruled by one body, say an Area Health Board, with three committees dealing respectively with hospital services, community services and general practitioner services. In July 1968 the Minister of Health in Britain published a green paper[24] on this subject proposing changes in the N.H.I. scheme including the setting up of forty or so Area Boards. In the same month the Seebohm Committee published its report[25] and recommendations on changes in the organisation and responsibilities of the local authority and allied personal social services so as to ensure an effective family service. Its

main recommendation was that there should be one unified social-services department. However, in most countries much of the development in integration of health and hospital services is still at the theoretical stage and not much has so far been accomplished practically. Experiments are in progress in several countries, some centred on the hospital and others involving general practitioners and local authorities more particularly, and it is likely that considerable changes will occur within the next few years.

217. The Report of the Royal Commission on Medical Education in the United Kingdom, 1965–68, published in April 1968,[21] sums up the position in the following paragraph:

> "Perhaps the clearest and most important difference between the present pattern of medical care and the future pattern as we see it lies in the relationship between the main branches of the medical services. A steady movement towards integration of hospitals, general practice and local authority services and strong pressures towards inter-dependence and co-operation among doctors within each of these broad fields, can be seen wherever one looks; this movement must be reflected in every stage of medical education."

218. Mention has been made of the artificial distinctions which have been made in the past between the care of the physically and mentally ill. To speak of artificial distinctions between psychiatry and the rest of medicine is not to deny that the needs of the physically ill and the mentally ill may at times differ greatly. These differences are neither to be overlooked nor minimised. Indeed, planning for one group may be hindered if an attempt is made uncritically to carry over concepts and practices found useful for one field into the other. Each section has something to learn and something to give; but each needs to be aware of the gaps in, as well as the strength of, its own knowledge and potential contribution to a comprehensive health service. Just as narrow distinctions between mind and body are often made because of the inadequacy of our present understanding of man as a whole, so at times division of services between those for the mentally ill and those for the physically ill reflect inadequacy of total health concepts. Notwithstanding limitations of present knowledge and therapeutic resources it is profoundly true that no health service which ignores the requirements of either the psychiatric or the physical needs of patients can be fully effective. Man is a unity of body and mind. To have two administrations which by their separations deny this, is clearly unsound. Sound planning requires that health services be designed and operated so as to provide adequate care in both fields. This cannot be achieved without some unification of control.

219. The problems of integrating services for the mentally and the physically ill where largely separate (and to some extent segregated) hospitals are already in existence, must not be under-estimated. The historical, social and psychological pressures which have maintained the segration for so long will not cease to have their effect simply by the taking of new political or administrative decisions. The acknowledgment of this difficulty, however, is not to be taken as an excuse for delaying the necessary work.

220. The desirability of one integrated health service with provision for all specialist needs, including the very great specialist needs of psychiatry, cannot be challenged on professional grounds. There may well be considerable argument and indeed very great divergence of opinion,

as to the most appropriate way in which the integration of services is to be achieved. In considering the problem it is accepted that New Zealand is, at least for the foreseeable future, effectively committed to the system of local Hospital Boards. Control of a very substantial section of health services already rests with the Boards. In these circumstances there seems to be no presently workable alternative to the integration of all existing mental health services into the system of care already established under Hospital Boards. This will be most effectively brought about by the general transfer of hospitals of the Mental Health Division to the appropriate Boards, and provision for this has been made in the Mental Health Act (1969).

The Role of Private Hospitals and Voluntary Organisations

221. In paragraphs 51–54 which summarise the history of the development of the private hospital sector in New Zealand, the steady increase in the number of private beds between 1961 and 1968 was noted and this is evidence that there has been no slackening in the demand for private hospital accommodation on the part of the general public. As in other countries with similar welfare state provisions for free public hospital accommodation, there is still a sizable section of the public prepared to pay for the privilege of the more personal attention and personal choice of doctor afforded in private hospital accommodation.

222. There is a continuing place for voluntary effort in hospital services, as already pointed out in paragraphs 55–60, and this is being fostered and encouraged by Government through the Department of Health which pays subsidies to religious and welfare organisations, and to the voluntary agencies engaged in health and welfare work, including the Plunket Society, the King George V Children's Health Camps, and the Intellectually Handicapped Children's Society.

CHANGING ATTITUDES TO EDUCATION

Medical

223. The changing patterns of medical care which have resulted, or are likely to result in the future, from the trends outlined in this section, have made necessary, a critical re-appraisal and review of medical education, both undergraduate and postgraduate, in many countries including New Zealand. Reference has already been made to the Report of the Royal Commission on Medical Education in Great Britain, published in April 1968.[21] This comprehensive report contains much of interest and relevance to this country.

224. In paragraphs 39–42 reference was made to the important role of the Otago Medical School in medical education, and to the Christie report of April 1968 which recommended direct University representation on the Otago Hospital Board. Recommendations were also made for improved and extended clinical teaching facilities to deal with the larger numbers of medical students who will be required, and reference has been made in paragraph 103 to a possible expansion of branch faculties to meet this need.

225. The opening of the Auckland Medical School in 1968 has given the Faculty there the opportunity of introducing a revised medical curriculum embodying some of the new concepts of undergraduate medical education which have been evolving during the past two or three decades. The medical course there will be of six years' duration, leading

to the degrees of Bachelor of Medicine and Bachelor of Surgery. The pre-clinical course, lasting three years will be devoted to instruction in human biology and will lead, in the case of the successful student, to a Bachelor of Science degree at the end of the first triennium. The clinical period follows, leading to the M.B., Ch.B., degree, and during the final year students will be expected to accept some supervised responsibility for the care of patients, and the transition from the undergraduate to the postgraduate phase will be a gradual one. The work of students will be carefully assessed month by month and periodic estimates of progress will be made rather than depending on the results of annual examinations as is the common practice at present in most medical schools.

226. Appreciating that the range of opportunity now offered to the medical practitioner is so wide, it is hoped to attract as entrants scholars with a corresponding breadth of interest and variety of background. Entry will therefore not be biased towards those with a prior training in science subjects. The main yardstick for selection will be the scholastic performance in the last year at school, with a final assessment made following interview and examination of headmasters' reports.

227. There will be no particular hospital or hospitals in the Auckland Hospital Board area, designated as teaching hospitals. Instead the Board has declared all hospitals within its authority to be available to the school for the instruction of medical students. The result is that there will be a complex of hospitals available, particularly the Auckland Hospital, Green Lane Hospital, Middlemore Hospital and National Women's Hospital, providing a totality of beds and facilities superior to those of most schools within the Commonwealth.

228. The new school aims at orientating the student during his clinical course towards the particular branch of medicine in which his services will be required and for which he shows special aptitude, e.g. general practice, hospital practice or community health work. It is recognised that general practice as such, though it will continue in essence, is bound to undergo great changes in the foreseeable future. The single-handed general practitioner operating from a domestic or shop-type consulting-room, is likely to disappear and the small partnership will have difficulty in providing services needed for the effective practice of medicine. The curriculum has therefore been altered with the aim of producing graduates oriented towards general practice, and with a sound knowledge of psychiatric medicine and psychology, so fitting them for entry into group partnerships with paediatricians, obstetricians, etc., working from health centres or their equivalent.

229. The development of the health centre concept, following experiments which have been taking place over the last few years in the United States, England, Scotland and Sweden, could have a profound effect on medical care arrangements. Basically, the centres would be for practitioners to run their own practices from, with appropriate support from auxiliary personnel such as nurse-receptionists, public health and district nurses, medical social workers and the like, and with a closer link between the general practitioner and his colleagues in the hospital and public health fields. While depending on the nearest hospital for diagnostic and therapeutic purposes, the health centre could help it by providing in some cases, a more suitable point of entry for medical care than a hospital department, and perhaps also making it possible for admissions to be avoided altogether.

230. With regard to postgraduate medical education, the general trend is towards the view that doctors in every branch of medicine now need several years postgraduate training, and that postgraduate training should therefore be extended and reorganised so as to provide a systematic and rational progress from basic qualification to the appropriate level of career competence and to maintain the competence thereafter.

Nursing

231. Previous chapters have briefly traced the history of nursing education in New Zealand and described the pattern as it exists today. This section outlines some of the trends in nursing education in New Zealand and overseas which are likely to influence future plans and policies.

232. Like all other branches of learning to which science and technology contribute, medicine continues to make tremendous advances. Current trends are directed towards educating nurses so that they can keep abreast of these advances and provide a comprehensive nursing service as part of the total health service of the community.

Improvement in the system of nursing education is overdue in New Zealand, in the interests of the patient, the community, the doctor and the nurse.

233. Student nurses have hitherto had but a glimpse for instance, of the age of ecology in which we find ourselves, in which the patient and the community have become the focus of medical and nursing attention. Electronic data processing has made possible the marshalling and presentation of facts in a way never before thought possible. More and more we are concerned with the social involvement of medicine and this in turn has tremendous implications. The present economic situation makes it essential that the pattern of nursing education be efficiently planned.

234. There is widespread trend elsewhere towards a system of three basic nursing programmes:

(1) A university based programme to educate a nurse, defined by the International Council of Nurses as "that person who has completed a programme of basic nursing education and is qualified and authorised in her country to supply the most responsible service of a nursing nature for the promotion of health, the prevention of illness and the care of the sick".

(2) A diploma programme, similar to the New Zealand three year general course, but offered within the system of general education, and including as in the above programme a high percentage of clinical instruction in hospitals and other health agencies, designed to prepare "nursing personnel able to provide generalised patient care of a simple nature requiring both technical and inter-personal skills".

(3) A shorter programme similar to New Zealand's community nurse programme with a high percentage of time spent in clinical areas designed to prepare "nursing personnel able to perform specified tasks related to the patient care that require considerably less use of judgment".

235. This trend has been well recognised and the Nurses and Midwives Board in 1964 agreed in principle to work towards the establishment by 1970 of only three basic nursing programmes, namely: a university

programme to prepare nurses for the most responsible posts in nursing and to begin preparing administrators, educators and researchers; a comprehensive programme to prepare nurses for first level positions in generalised patient care; and a community nurse programme to prepare nurses to provide basic nursing service requiring a lesser degree of clinical responsibility.

236. The trend towards offering the first and to some extent the second type of basic programme within the system of general education has already been implemented in many countries including some in the "low income" group and their schools of nursing can be regarded as truly educational institutions. The advantages which would accrue if the nurse could have student status and be financed by a bursary scheme have been recognised by nurses' organisations in New Zealand. However, it is realised that such a system must of necessity take many years to implement in view of the changed pattern of hospital staffing which would be involved. At present, the hospital system is dependent on students spending the majority of their time (approximately four-fifths) in nursing service.

237. The trend overseas is for post-graduate education to be offered in University programmes where students learn with those from other fields of health and from other disciplines. Re-orientation programmes for those returning to nursing and continuing education programmes for registered nurses are also highly developed now in many countries. In New Zealand there is a discernible trend towards a future consolidation of post-certificate courses, and towards the provision of better orientation programmes for married nurses and the development of continuing education opportunities at regional and local levels.

238. In the field of public health nursing it has been recognised that in the past the preparation of nurses for this important section of the nursing services has been inadequate, and a one year pilot course designed to better prepare these nurses for their future role as "all purpose" nurses in the community has now been developed at the Postgraduate School for Nurses.

239. The Department of Health and the Nurses and Midwives Board have been concerned about the lack of significant data, the need for further research, and the need for a full-scale study of nursing education. Lack of staff suitably qualified to undertake such a study, has so far prevented this, but it is recognised that such research is overdue. In terms of potential cost saving it could well prove a most worthwhile exercise.

240. As already stated in paragraphs 130 and 131, the duplication of nursing programmes which at present exists, is wasteful of resources and a reduction in the number and variety of schools is indicated. Such a reduction would make possible an improvement in the classroom and library facilities of the remaining schools, and would help towards increasing the ratio of tutors to students and thus allow improved teaching methods to be introduced. Efforts towards this end have so far met with only limited success due to local pressures to continue operating hospital nursing schools as a means of meeting their nursing service needs. However, the encouragement of the broader community nurse programme and the consequent phasing out of maternity nursing programmes has met with more success. In the psychiatric nursing field, while it is recognised in many other countries that the efficient utilisation of available resources calls for an integration of psychiatric nursing in

the basic curriculum, this concept has yet to gain universal support here.

241. Regarding teaching staff in nursing schools, there is a tendency towards increasing the nursing content of the lecture programmes with a consequent reduction in the number of lectures given by doctors. As already noted in paragraph 131 there already is a national shortage of nurse tutors and too many of their present number do not possess the New Zealand Postgraduate Diploma of Nursing or its equivalent, recognised as the minimum acceptable qualification for tutors. The question of changes in salaries for tutors in order to encourage some stability and to give recognition to the knowledge and skills required in teaching, is at present under consideration.

242. In paragraph 44 mention was made of establishment of the Division of Nursing within the Department of Health and of its Director's responsibility for the administration of the Nurses and Midwives Registration Act in addition to the policy and supervision of the Division of Nursing. This dual responsibility having proved to be cumbersome, tentative plans are now in train for the separation of the Board from the Department of Health.

OTHER OCCUPATIONS AUXILIARY TO MEDICINE

Physiotherapy

243. In the field of physiotherapy the trend is towards greater concentration of care in the very early stages of illness, aimed at prevention of disability and a quicker return to normal activity. For example, treatment of hemiplegia usually commences within forty-eight hours of the cerebro-vascular accident with special positioning in bed. Re-training of movement and balance is instituted early and ambulation follows within a few days. Fewer patients are developing the severe spasticity and consequent deformity which in earlier days required prolonged treatment and so often prevented a return to independence. Treatment is being instituted earlier in a wide variety of medical and surgical conditions and there is less accent on chronic stages.

244. In line with this trend, physiotherapy has extended into the field of the seriously ill, and for example physiotherapists are attached to intensive care, coronary care and cardio-thoracic units, their part in the team work being prevention of respiratory failure and circulatory complications. This type of service which is growing rapidly as hospitals develop special care units is provided throughout a 12-hour day and at call over weekends. It is integrated with medical and nursing routines and has brought physiotherapy into much closer co-operation with these fields.

245. On the prophylactic side there is potential for development of physiotherapy services in industry. In the Scandinavian countries physiotherapists are employed quite extensively for analysis of work methods and training of workers in efficient movement patterns. This type of work is being introduced to a small extent in New Zealand industry, in relation to prevention of back injuries. It is confined mainly to instructional sessions given by private practitioners in association with organisations such as the New Zealand National Safety Association. Promotion of physiotherapy in preventative medicine is held back by a constant general shortage of qualified personnel.

246. Over the past decade physiotherapy methods have changed quite considerably. Emphasis is now on activity and fewer passive and palliative measures are employed. Heat, cold and the various forms of electrotherapy

are recognised as useful adjuncts to but not substitutes for active ways of regaining function. The role of the physiotherapist is not just that of one who administers treatment. It is one of convincing patients of the need to take an active part in their own recovery and of teaching them how to do so. The move away from passive treatment, and the development of more positive approaches to rehabilitation has placed greater responsibility on physiotherapists to assess condition, locate specific causes of disability such as imbalance of muscle power and limitation of movement, and to plan, within general medical direction, progressive treatment programmes suited to individual needs.

Occupational Therapy

247. Occupational therapy has broken away from the concept that the main object was to keep the patient occupied. There is a greater emphasis on rehabilitation and retraining, and for this type of programme to be fully effective the therapist first conducts a complete and accurate functional assessment of each patient and an evaluation of social domestic and educational background. For rehabilitation to be practical it can only be assessed in a practical manner, and in assessment the occupational therapist uses her knowledge of activities and skills as related to normal and abnormal function. This form of assessment applies to both psychiatric and physical conditions.

248. To simulate practical situations most occupational therapy departments now include kitchen, bedroom and bathroom units where evaluation and retraining of activities and daily living and domestic training is conducted. Workshops contain light and heavy machinery which is used in evaluation of work skills, physical ability and tolerance and motivation factor. In some hospitals this is carried a step further with the establishment of Industrial Therapy Sections for actual job retraining.

249. The establishment of units for patients with spinal cord injury and day care units for geriatric and psychiatric patients has completely altered the function of the occupational therapist. The patient's treatment is commenced at an earlier stage in his illness; the therapy is concentrated and directed towards making the patient, whether he be physically or psychiatrically ill, as independent as possible. For consolidation of the therapy programme the district occupational therapist may need to continue treatment in the home environment of the patient. Provision of special aids-to-daily-living, the adaptation of equipment and surroundings to comply with the physical abilities of the patient, advice on structural changes in the home with reference to access doorways for ambulant and wheelchair patients, re-educating to adapt to public building, transport and work surroundings are some of the factors which may contribute to the final rehabilitation of the patient.

250. The occupational therapist can now contribute more actively to the total medical team. Overseas studies have demonstrated that although there are certain differences between different groups of physical disabilities, much larger variations were liable to be associated with intellectual, emotional and motivational factors and an occupational therapist's training equips her to understand these and structure the treatment programme accordingly

Co-ordination of Physiotherapy and Occupational Therapy

251. The advances in medical knowledge and techniques and in the concepts of general patient care and rehabilitation with consequent

shorter periods in hospital have led, accordingly, to considerable changes during recent years in the techniques employed in physiotherapy and occupational therapy. These in turn have made necessary changes in the respective training programmes of the two disciplines. The trend is towards co-ordination of those activities directed towards the same objectives, whilst appreciating the separate functions of the two disciplines. Towards this end there are moves to bring the training schools closer together so that common subjects in the two curricula can be studied together. Also, in the planning of new physical medicine departments this aim is promoted by joint planning in order to foster the concept of the more rapid rehabilitation of patients by co-ordinated physio- and occupational therapies.

TECHNICAL TRAINING

252. The rapid advances in diagnostic and therapeutic measures which have occurred during the past two decades have resulted in the need to revise the training programmes of many of the paramedical personnel employed in hospitals.

253. Automation in hospital laboratories, and the wider use of more sophisticated pathological tests has radically altered the content of the laboratory technologists' course. Specialisation in one or other of the main sections of laboratory work—haematology, clinical biochemistry, microbiology, blood serology, histology, etc., is becoming more necessary, as the extent and complexity of the tests increase.

254. The work of the radiographer has also widened, e.g. with the advances in cardiology and open heart surgery and the consequent development of complex X-ray techniques associated with the diagnosis of these conditions.

255. The orthopaedic technician is now established as an essential member of the staff of any orthopaedic department: here again, the scope and complexity of the work he is asked to perform has greatly increased, as also has the training which he must undergo. A central committee on the training of orthopaedic technicians has been set up and has drawn up courses of study covering all aspects of orthopaedic appliance and surgical footwear making and repair, and is to conduct examinations leading to certificates in the subjects covered.

256. The advent of more and more complicated electronic apparatus and electrical equipment in hospitals has led to the need for skilled technicians trained in the medical aspects of the work in which they are involved. This has opened a new field in technical training which is still in its infancy, but which is bound to develop rapidly. Discussions on the extent and content of the training programmes are now under way.

CHANGING ATTITUDES TO MANAGEMENT IN HOSPITAL SERVICES

257. There is an increasing awareness that some of these techniques of management which have proven themselves in other spheres of human endeavour can be brought to bear in the hospital service. Hospitals absorb a high proportion of the national effort and the public is entitled to know that this effort is directed or managed with all the skill which is available. Change in this direction is being accelerated by the necessity to group hospitals into bigger units to meet the challenge of technology and specialisation referred to above. Improved techniques of communication and the computer will help to further these trends.

258. Higher education for staff who aspire to Secretary and similar top-level posts in the hospital service, is best provided by existing university courses in public or business administration rather than as had been suggested, by the introduction of a special course for hospital administrators. In this respect, the "1980 Report"[26] recently published in Britain by a special committee on hospital administration contains many points and recommendations relevant to the future of hospital administration in New Zealand.

259. There has been a growing interest in recent years on the part of various categories of staff employed in the hospital service in short courses in management. An increasing number of staff have attended management training courses run by the State Services Commission, the New Zealand Administrative Staff College, and the New Zealand Institute of Public Administration. With the steady growth of the hospital service (now over 33,000 employees) it became apparent that the service itself had to provide some courses of this kind. The first of these, a residential course of one week for senior Hospital Board officers (medical, nursing and secretarial), was held in September 1969 at the Tiromoana Training Centre, Porirua Hospital. Sponsored by the New Zealand Hospital Boards' Association and the Education Committee of the New Zealand Hospital Officers' Association, with the assistance of the Department of Health, this course was very successful. It is hoped that it will prove the forerunner of many others.

CHAPTER IV: POLICIES AND PLANS

260. In the light of the above trends it has become necessary to review the current policies and plans, both firm and tentative. But it must be borne in mind that whereas a measure of idealism in the formation of policies is both necessary and commendable, it must nevertheless be tempered with realism. The coat must be cut according to the cloth, but a coat of less than perfect fit is still better than no coat at all. New Zealand is a relatively small country, with less than three million inhabitants. The development of its hospital services must be so planned as to ensure the maximum use of the hospital facilities, equipment, skilled manpower, and defined financial resources available. It is often necessary to choose between on the one hand the establishment of an esoteric speciality for a limited purpose bolstered by its attendant publicity and the glamour of public notice; and on the other, the wider provision of facilities for the treatment of the less dramatic ailments which afflict the more of mankind.

261. This chapter has been divided into two sections: the first dealing with policies and plans having application on a national basis to general and obstetric hospitals; the second to psychiatric hospitals and services. Chapter V which follows will deal with each hospital district in turn, and attempt to relate these national policies to individual areas.

(a) GENERAL AND OBSTETRIC HOSPITALS—NATIONAL POLICIES

HOSPITAL BOARDS AND DISTRICTS

262. The Barrowclough Report on Hospital Reform,[5] in 1953 advocated the retention of the principle of election of Hospital Board members by popular franchise. More recently, however, following the Christie Report[8] on the Otago Medical School, provision has been made in the Hospitals Amendment Act 1968 for the University of Otago to be represented on the Otago Hospital Board by up to five persons nominated by the Council of the University to the Minister of Health, in addition to the elected members, and this provision has now been implemented.

263. The Barrowclough recommendation that there should be nominated members on the four Metropolitan Boards has not been so implemented, and the policy of election by popular franchise of all members of Hospital Boards, with the abovementioned exception of the Otago Board, can be expected to continue in the foreseeable future. There is also no proposal to change the present limits of membership of Boards which, as prescribed by the Hospitals Act (1957), varies between 8 and 14. The membership of each Board is reviewed by the Hospitals Advisory Council prior to the triennial local body elections; any changes in representation deemed necessary by reason of movement or growth of population, etc., are recommended to the Minister for his consideration in

accordance with section 27 (2) of that Act. The Council's primary aim is to ensure that all areas in a Board's district are adequately represented, rather than to calculate representation on a purely population basis, and it has regard to the interests of remote thinly populated areas.

264. Regarding the size of hospital districts, there is by now general agreement upon the inevitability of a reorganisation and regrouping of the public hospital services throughout the country, into viable units by present day standards.

265. Of a total of 31 Hospital Boards, 11 serve populations of 1 percent or less of the national total of 2,737,000; none of these is properly capable of providing a comprehensive range of patient service without a disproportionate allocation of resources. In Chapter V dealing with Hospital District policies, the possibilities of various reconstitutions of hospital districts are put forward. Generally the aim must be to ensure capacity for such a comprehensive service by provision of a national pattern of base hospital and sub-base and satellite units. Some examples which are already functioning, are in the Northland Hospital Board District (base at Whangarei with sub-base at Kaitaia and satellites at Dargaville, Kawakawa, Rawene and Kaeo); in the Waikato Hospital Board District (base at Hamilton, with sub-base Rotorua and satellites at Te Kuiti and Tokoroa); and in the Southland Hospital Board District with Kew as the base hospital in Invercargill, Gore as a satellite and minor units at Riverton and Frankton (Queenstown).

266. The present position and future function of a number of the smaller hospitals has significance in relation to the idea of "community hospitals" as presented in a recent publication by the Medical Association of New Zealand[27] and relevant views in the recent U.K. Green Paper.[24] A number of existing Boards are, in terms of the above, already operating community hospitals, serviced largely by local general practitioners with or without a small full time staff, dealing with cases of moderate clinical requirement and depending on more fully equipped neighbours or upon services further afield for provision of more demanding care. With the expansion of staff and facilities and the concentration of complex and expensive equipment in the larger hospitals, some of these smaller units will necessarily retain their present function, but a number might well change their role to accommodate convalescent patients on early discharge from the acute hospitals, or to become geriatric units, or to meet a combination of these purposes.

267. In keeping with the policy of placing all hospital services under Hospital Board management and within districts of effective size and scope, recent transfers by the Department of its control of the three St Helens Hospitals, at Auckland, Wellington and Christchurch to the respective Hospital Boards have been followed by a similar transfer of Queen Elizabeth Hospital at Rotorua to the Waikato Board on 1st October 1968.

268. It is also declared policy similarly to transfer the hospitals of the Mental Health Division to the management of Hospital Boards. As preliminary moves to this end, the building of psychiatric reception-admission units of 40 beds is in progress at public hospital sites at Waikari (Dunedin), Palmerston North and Kew (Invercargill).

269. In the same policy trend, conjoint planning between the Department and the Wellington Hospital Board is now under way with the aim of ensuring the co-ordination of services, siting of facilities, etc.,

between the present Porirua Hospital and the general hospital which is planned to be built beside it. Similar co-ordination of planning is intended wherever further psychiatric hospital building is to be undertaken, and preliminary consideration has been given to a forward proposal for Hamilton, in discussion with Waikato Hospital Board. Exploratory talks have also begun in relation to six other Hospital Districts.

270. Only when the number of Hospital Boards has been reduced until each becomes responsible for a district of sufficient size and scope can the full possibilities of medical care administration at the local level be developed. This advance should provide a better basis for effective liaison with all medical practitioners in an area. Furthermore, the administration of the Social Security medical benefits (excluding pharmaceutical benefits) might well become a Hospital Board responsibility, as might the annual licensing of private hospitals, thus bringing both these aspects of medical care administration within the purview of a locally oriented and informed authority.

Financial Control

271. In paragraphs 89–99 a full account has been given of the evolution of the current system of maintenance grant allocations. The Department is aware that the formula for making these allocations still needs refinement, and further study of the various factors involved is being undertaken by the Department and a representative Allocation Committee. Their conclusions will be reflected in future allocations to Boards.

272. It is now accepted that the system whereby Government decides the annual global sum which will be made available for hospital maintenance expenditure must become permanent. The Hospitals Amendment Act 1968, passed on 12 December 1968, contains amendments to sections 88 and 89 of the Hospitals Act 1957 giving effect to the changed procedure.

273. The loan system of financing major capital development works is expected to continue as at present.

Hospital Planning and Development

274. The planning of hospitals is considered under the following headings:

(a) The inter-related planning of several hospitals within a Hospital Board district (and at times as between different districts) to take account of basic requirements and of forward development needs.
(b) The production of a development plan for a particular hospital project.
(c) The planning of the individual buildings of such a hospital.
(d) The planning of detailed requirements within each section of a building.

275. The planning of a hospital or any part thereof begins with a decision as to basic needs. These are largely determined from the evaluation by the Research and Planning Unit of such items as:

(i) The bed requirements of the area, taking into consideration any special factors in the community to be served.
(ii) The particular services to be provided, e.g. geriatric, paediatric and surgical.
(iii) The relationship between existing bed services and the predictable demands resulting from population increases, etc.

Examination of and advice upon building and planning programmes is undertaken in the Department by its building section which consists of architects, building services engineers, fire protection officers and associated administrative staff.

The technical resources which may otherwise be required are provided by the Ministry of Works.

Operational Research

276. Operational research is the function of the Department's Research and Planning Unit, established to provide health administrators with a quantitative basis for decisions upon the employment of medical and other health workers and upon the most effective utilisation of other resources.

277. Its interests are, in general, the application of research methods to the study of health and hospital systems and the evaluation by operational research and work study of the use of health resources. By these means are developed indices of performance and of effectiveness of management. The unit is also concerned with the development of information systems, including data processing systems using electronic computers; with the development of standards of functional design of hospitals and other health facilities; and with bases for the provision of staff, equipment and accommodation. An important function of the Unit is the prediction of needs in health services and of the related timing of development to provide the services decided upon.

278. The Unit has already carried out a number of patient-nurse dependency studies and surveys, in three public hospitals in Christchurch with a view to obtaining data to assess the in-patient use of beds and give a lead in forecasting bed provisions. The surveys were published in the Department of Health's Special Report Series, Numbers 13, 14, 15, 20, 21, 22 and 23 and covers "Gynaecology", "Geriatrics", "Paediatrics", "General Surgery", "Orthopaedic Surgery", "General Medicine" and "G.U., Eye, E.N.T."[28]-[34] From the data collected and analysed it has been possible to arrive at certain bed standards per head of population and these have since then been applied, with local variations, to other hospitals in the country. These figures are regularly revised in the light of further research work and surveys.

279. The basic planning ratios for beds in general hospitals are:

(a) For children aged 0–12 years, a ratio of 2.15 beds per 1,000 population in the age group.

(b) For adults aged 13–64 years, a ratio of 3.55 beds per 1,000 population in the age group.

(c) For adults aged 65 years and over, a ratio of 26.00 beds per 1,000 population in the age group.

For a population with 28 percent of children (0–12 years) and with 8 percent aged 65 years and over these age specific ratios are equivalent to 4.95 beds per 1,000 total population.

For a population with 28 percent of children (0–12 years) and with 10 percent aged 65 years and over the gross planning ratio is 5.5 beds per 1,000 total population.

The above ratios include a long-stay bed occupancy factor for adults 65 years of age and over at the rate of 14.3 beds per 1,000 in the age group and a long-stay provision for adults under 65 years of age at the

rate of 0.64 per 1,000 in the age group. Basic provisions do not include obstetric beds or an allowance for national specialties.

Division of Beds Between Specialties

280. Of the acute beds to serve adults 13 years of age and over, the approximate proportion of beds in each specialty is:

General Medicine	42%
General Surgery	27%
Orthopaedic Surgery	14%
Gynaecology	6½%
Genito-Urinary (Male)	5½%
E.N.T.	2½%
Eyes	2½%

These figures should be used as a guide only, as the proportions may vary somewhat with the population served and the availability of specialists. It must also be stressed that efficient use of beds cannot be achieved unless some flexibility is ensured in the allocation of beds between specialties.

281. Other factors which have to be taken into consideration when calculating bed needs are the efficient use of in-patient facilities, the turnover of patients, the extent of waiting lists and the availability of domiciliary services providing an effective liaison between the patient's general practitioner, the hospital, and the domiciliary staff.

282. The efficient use of in-patient facilities calls for rapid turnover of patients. It is, however, not to be presumed that rapid turnover is of necessity good nor of necessity an indication of an efficiently run hospital, for there must come a stage where over-enthusiasm in this regard will lead to patients being discharged so early that they come to harm or their recovery is retarded. On the other hand there must be an optimum time for discharge after which the benefit accruing to the patient, weighed against the cost to the community and the needs of waiting-list patients no longer justifies a further hospital stay and at which stage a critical consideration of the individual case is called for. The bed-time index and comparisons of length of stay can help to identify possible deficiencies in medical management.

283. Limited surveys of waiting lists have shown that there is considerable scope for improvement in their operation. In general too little regard is had for the personal and economic responsibilities carried by those on the waiting lists. Much more can be done towards changing orientation from a "waiting list" concept to that of "arranged admission". Long waiting times and growing waiting lists attract criticism and among other things hospitals should ensure that people on waiting lists are still alive, have not moved away and are still in need of hospitalisation. A quarterly check by every general hospital appears an appropriate requirement of management, and a classification by "average waiting time" by categories of diagnosis, is probably more significant than the gross totals of the list.

284. Waiting lists should be maintained by specialty with sub-division for urgency as warranted. There is no justification for maintaining waiting lists on the basis of individual specialists. Until such time as admission is arranged there is no point in designating a particular clinical team as responsible for treatment. It is a matter of principle that a hospital administration should employ only those who are appropriately qualified,

but there is no assurance of choice to the individual as to who will operate or supervise his treatment.

285. Waiting lists will grow to unmanageable proportions unless the average admission rate from a reliable and up-to-date list is kept higher than the rate at which names are added. Admittedly the responsibility of an individual doctor for the care of an individual patient is the only satisfactory basis of clinical practice. A properly trained and appointed specialist should be answerable to no other individual doctor but only to the standards set by groups of colleagues, by specialty organisations, or by the profession as a whole. Close collaboration between the specialist and the hospital administrative staff is of course essential to the effective management of any waiting list.

286. Accommodation surveys have also been carried out at a number of hospitals of the Mental Health Division and findings of these are an important consideration in the policy matters referred to in paragraphs 268 and 269 above, and in particular in the joint planning with the Wellington Hospital Board of developments on the Porirua site.

Building Development

287. Once the bed numbers and type of beds required, and the rate of increase have been established by the Research and Planning Unit, the procedure adopted for the larger urban areas is as follows:

(a) A development graph is prepared for a period covering the next twenty to twenty-five years. The graph indicates bed requirements in, say, five-yearly periods, including both public and private beds and this is drawn in as the basic datum line.

(b) The numbers of existing beds are plotted together with any known additions which may be under action. Where buildings are estimated to have a limited life, either structurally or functionally, these are indicated as deductions from bed totals at the appropriate year.

(c) The net result is a line which at times may be above and at times below the datum line. The extent to which this happens indicates the size and timing of building necessary, in order to comply with the datum line.

(d) In the case of a Region, it is necessary to relate the various overall bed stages of the hospitals so that the combined graph is kept as close as possible to the regional datum line.

(e) From the information and timing thus obtained it is possible to determine not only how many beds are required and when, but also when is the appropriate time to commence planning.

(f) At the same time that the bed requirements are determined, checks are made to determine what other sections may need to be considered to ensure a correct balance of facilities and services (boiler-house, kitchens, theatres, X-ray, laboratories, etc.).

288. Having determined the requirements for beds and associated services a development plan is drawn up for each particular hospital. This should cover a period of twenty to twenty-five years or so and indicate a staged physical (i.e. location) development capable of providing new beds and associated services and taking account of probable demolitions and changes in function of buildings. This is the first architectural plan drawn and shows the general block planning of the various buildings and their location on the site together with the staged timing.

289. Once this basic pattern has been approved in general terms, planning can be commenced on individual buildings at the appropriate time. Before planning is actually commenced, however, the Hospital Board is asked to submit a "brief" showing a "Schedule of Accommodation". This is a comprehensive document setting forth the various areas required, their sizes, and relationships with other rooms, this to be approved before any drawing commences.

290. Once a schedule is approved Boards proceed to preparation of sketch plans. These are necessarily subject to continuing discussion between Board and Departmental officers especially in the case of large schemes, to ensure that as far as possible and from the earliest stages, the most suitable and economical solution is pursued. Sketch plans being approved, working drawings proceed and again such consultations as are necessary are held during their preparation.

291. At each of these stages a proposal together with current estimates of costs is examined by the Hospital Works Committee for recommendation to the Minister of Health to proceed further.

292. To assist Boards and their consultants various planning guides have been prepared setting forth the size and type of accommodation and equipment which the Department considers reasonable. These are used as a basis for planning, and provide a standard of requirements. Little in the way of standard plans is adopted since the varying requirements and actual physical, i.e. site conditions obtaining in the various hospitals, makes this difficult to achieve.

293. The Department provides a considerable and expanding experience to assist and advise Boards in all areas of planning.

National and Regional Specialties

294. As already stated in paragraph 88 (a) the establishment of national and major regional specialties such as cardiac surgery units, kidney transplant units, neurosurgical facilities, radiotherapy services, etc., is subject to Ministerial approval upon recommendation by the Hospitals Advisory Council. This policy is essential to ensure that the provision of such facilities is planned on a national basis in units centred upon a sufficient concentration of patients to allow maximum use of their increasingly complex and costly equipment and of the scarce skilled professional and technical staff needed to run them. The financial implications of establishing these more advanced specialties must also be carefully weighted in relation to the need for the wider range of more basic facilities.

295. During the past ten years the Hospital Advisory Council has considered, and made appropriate recommendations to the Minister on neurosurgery, open cardiac surgery and kidney transplant and dialysis.

Neurosurgery

296. The establishment of a third neurosurgical unit for New Zealand, additional to the existing units at Dunedin and Auckland, occupied the attention of the Council from time to time from 1958. Both Wellington and Palmerston North Hospital Boards pressed claims to open the next neurosurgical unit, while the Otago Board feared the establishment of such a unit to the possible detriment of its own unit at Dunedin. In 1961 the Council concluded that the need for a third unit at that time was not established and that the matter would be reconsidered in from five to seven years in the light of the growth and distribution of population

and the development of treatment techniques. It was pointed out that in the establishment of Neurosurgical Units and similar highly specialised services the important factor is the availability of trained personnel.

297. In 1966 the figures of patients and the distribution of their sources of origin supported the case for a Neurosurgical Department at Wellington Hospital as the third Neurosurgical Unit in New Zealand. This was approved by the Minister in January 1967.

298. There is no further proposal at present for an extension of the neurosurgical services other than through the further establishment of neurosurgical clinics in provincial centres, operating from the existing units; however Spinal Injury centres have been established under the responsibility of Auckland and North Canterbury Hospital Boards. There is discussion at present continuing as to the optimum number of these centres to service the country, but the considerable distances involved must be a significant factor in any decision to reduce to one unit. Certainly, however, no more than two centres as at present are justified.

Cardiac Surgery

299. The first open cardiac surgery unit in New Zealand was developed in Auckland at Green Lane Hospital. In 1963, following a report submitted by a special committee established in 1962 by the Minister of Health to advise him on the national requirement in the field of cardiac surgery, it was unanimously recommended by the Committee and endorsed by the Hospitals Advisory Council that a second unit should be established at Wellington. This was approved by Cabinet. Government also decided at this time that a third unit should eventually be established at Dunedin at a time to be recommended by the Hospitals Advisory Council.

300. Since then the cardiological department at Dunedin Hospital has continued to develop in preparation for the establishment of the third cardiac surgical unit there. The heart-lung machine presented to the hospital has been used for animal experiments and in cases of emergency other than open heart surgery. The question of approval for the establishment of the third unit at Dunedin was again raised in 1967, but it was considered then that the work-load is at present insufficient to warrant the setting up of a third unit in New Zealand in that while the proper staffing of such a unit is of crucial importance, and involves appropriately qualified cardiologists, chest physicians, surgeons, anaesthetists, radiologists and pathologists as well as many other nursing, technical and ancillary staff, an equally important consideration is the assurance of an adequate clinical load to ensure that these staff can develop and maintain the exacting professional and technical skills required.

301. Experience in Auckland and Wellington has shown that in order to provide an efficient service of this nature, it is desirable and necessary to attain at least two by-pass sessions per week, involving the full cardiological investigation of four to five patients weekly. The two centres already established at Auckland and Wellington are at present capable of dealing with the number of patients presenting for cardiac surgery. Following an increase in by-pass sessions, Green Lane Hospital has at present no significant back-log of cases and Wellington, which is keeping abreast by two sessions weekly, still has reserve capacity.

302. It is also relevant to note that facilities for open cardiac surgery have recently been provided by a private hospital in Auckland, the Mater

Misericordiae Hospital, where the necessary equipment and facilities were made possible through the generosity of a private benefactor, with assistance through availability of supporting staff permitted by the Auckland Hospital Board. This unit is expected to deal mostly with private patients, especially those coming to New Zealand from overseas who are prepared to pay for heart surgery. There is, however, a proviso that a number of necessitous New Zealand cases be accepted at no cost.

Kidney Transplantation and Dialysis

303. The first kidney transplant unit was introduced at the Auckland Hospital in 1966 and is now well established. In 1967 the Hospitals Advisory Council considered papers and other evidence submitted, to establish a firm policy for the development of these facilities in New Zealand. The recommendations made by the Council in April 1968 were:

(i) That the Minister approve the establishment of a second New Zealand kidney transplant centre at Wellington, with a view to its coming into function in about three years' time, and the necessary staffing, equipment and training manoeuvres required to achieve this end. In fact the first transplant was performed in March 1969.

(ii) That regular dialysis centres be approved to operate (in addition to the centre already operating at Auckland) at Wellington, Christchurch and Dunedin as reasonably early as facilities can be assembled and staffed for that purpose, and that Waikato be considered for a similar service at a later date.

Plastic Surgery

304. No firm policy has been laid down for the establishment of further units for plastic surgery, beyond those already established at Auckland, Wellington and Christchurch, but it is likely that pressure of work in the Auckland area could make necessary the establishment of another unit at Waikato before very long, and further extensions of this specialty will depend upon the volume of work in relation to the ability of existing facilities to cope with it. The establishment of a unit, at Dunedin, has been raised in a recent communication and is under consideration.

Radiotherapy

305. The Radiotherapy Sub-committee of the Radiological Advisory Council advises the Department of Health on all radiotherapy matters. It consists of three radiotherapists who are members of the Council and two radiotherapists nominated by the New Zealand Branch of the College of Radiologists of Australasia.

306. There are no plans to establish further radiotherapy units at other centres than those listed in paragraph 65 (d), namely Auckland, Hamilton, Palmerston North, Wellington, Christchurch, Dunedin, New Plymouth and Kew (Invercargill). There are, however, proposals to install further super-voltage equipment at some of these centres including Cobalt units at Auckland and National Women's Hospital, a Caesium unit at Waikato, a Theratron 80 unit at Palmerston North with transfer of the present unit to New Plymouth, and a linear accelerator at Christchurch. A Theratron 60 unit has also been installed this year at Celvary Private Hospital in Wellington, again through the generosity of a private benefactor.

Other Specialist Services, Etc.

Surgical Services

307. The policy with regard to specialist surgical services is that these should be limited to centres where there is a concentration of surgical work available sufficient to ensure that adequate accumulation of experience can be provided for the surgical and supporting staff. In general, major surgery should be confined to base and sub-base hospitals, with only emergency work and minor surgery carried out at satellite hospital level.

Out-patient Services and Accident and Emergency Services

308. The present position regarding out-patient services and casualty services has been summarised in paragraphs 79–81. The policy is that all hospitals should provide a casualty service available at all times to deal with accidents and other cases of emergency which cannot be promptly dealt with by a general practitioner. In larger urban centres with several hospitals, there may be advantage in centralising accident and emergency services upon one or two suitably located units, fully staffed to a suitable level of seniority and equipped to deal with the wide variety of emergency work which is involved, rather than for every hospital to provide a less efficient service.

309. In general, out-patient departments should provide consultant clinics for patients referred by the hospital visiting staff or by private practitioners, and should not attempt to deal with the casual patient who arrives at the out-patient department without referral. In order to shorten, as far as possible, the time out-patients have to wait before being seen, an efficient appointment system is essential so that the time between referral and appointment is as short as possible, and waiting-time in the department cut to the minimum.

310. The place of the smaller hospitals in the future pattern of hospital and community services and the relationship between them and the general practitioners in the district have been matters of recent discussion and debate. The Medical Association of New Zealand has produced a report on Rural Services dealing with this issue among others, and a working party was recently set up by the Minister comprising members of the Medical Association of New Zealand, the Hospital Boards' Association and the Department of Health, to consider this report and make recommendations to him on ways in which it is considered that improvements could be effected. Its recommendations are now under consideration.

Anaesthetic Services

311. The technological advances in the field of anaesthesiology and the increasing involvements of specialist anaesthetists in the fields of intensive care, respiratory and neonatal services are already calling for a changed pattern of staffing in anaesthetic departments. More full-time anaesthetists with higher qualifications are now needed.

Obstetric Services

312. In paragraphs 193 and 194 trends in the Obstetric field were outlined, and the aim of setting up a planned obstetric service throughout the country stated. To implement this it will be necessary to effect certain changes in the present system including:

(i) The encouragement of general practitioners with interests in this field to acquire additional qualifications or experience in obstetrics,

with the eventual aim of introducing something akin to the obstetric list in Britain.

(ii) The establishment of ante-natal clinics with specialist consultant services readily available where necessary.

(iii) Consideration of the future role of small maternity hospitals in the light of modern obstetrical views.

(iv) The establishment of obstetric units as base hospitals for obstetrics. In this connection, the Maternity Services Committee which is considering a revision of the Obstetric Regulations 1963 envisages three categories of maternity hospital in future:

(a) The obstetric unit which is a maternity hospital which includes some closed ante-natal beds under the supervision of a consultant specialist obstetrician and gynaecologist with facilities for caesarian section either on the premises or in the immediate neighbourhood, some closed neo-natal beds under the supervision of a paediatrician, and facilities for the isolation of patients and also for ante-natal clinics.

(b) The general maternity unit—a unit in which the delivery of cases considered to be normal could be undertaken by private practitioners with obstetric experience, and with consultant services available.

(c) The maternity after-care unit—a maternity hospital which by virtue of its facilities including staff, is designated as suitable only for the care of mothers and infants after delivery.

(v) The division of the country into designated areas, following the survey referred to in paragraph 194, and the establishment in these areas of a comprehensive obstetric plan on the lines indicated above. Following this, all future proposals for the establishment by Boards of obstetric facilities would have to be carefully examined to ascertain where they fit into the comprehensive obstetric plan of the area.

Paediatric Services

313. In New Zealand for some years now, there has been an increasing concentration on perinatal problems. There has been a great development of interest in, and knowledge of, intrauterine factors which affect the outcome of pregnancy. Similarly there has been world-wide development of knowledge in the haematology, metabolic and genetic fields, all of which can affect the developing child.

314. This increased knowledge has led to the closer co-operation of obstetrician and paediatrician, and such co-operation is essential where prematurity is a factor and especially where it is due to an unfavourable intrauterine environment.

The great problem is to decide the optimum time of delivery and hence transfer from the mother's uterus to the paediatrician's care.

315. The common interest of the obstetrician and the paediatrician in the perinatal field is shown by the development in many hospitals of joint perinatal/neonatal conferences and by the recognition that a properly equipped obstetric unit must include a neonatal intensive care unit and have the services of a consultant paediatrician. The Department, in 1966 appointed a Consultant Paediatrician who advises on all aspects of child care.

Psychiatric Services

316. The policies and plans for psychiatric services are dealt with later, in detail, in section (b) paragraphs 376–465.

Geriatric Services

317. The determination of the number of geriatric beds required in any area is at present being based on the findings of the 1962 Survey of Elderly Persons' Accommodation Needs (Department of Health Report Series No. 10). This survey indicated that the requirements of long-stay hospital beds for the aged sick was 1.43 per 100 persons aged 65 years and over in the community and the appropriate corresponding figure for short-stay beds was 0.79 giving a total figure for short- and long-stay beds of 2.22 per 100 persons aged 65 years and over. The Research and Planning Unit now advocates a figure of 2.6 per 100, to allow for an 80 percent bed occupancy figure.

318. In April 1964 the Board of Health recommended the setting up of a Committee on the Care of the Aged, and its report[14] was published in September 1967. In its conclusion and recommendations on the provision of geriatric accommodation in public hospitals were the following:

(a) As a general policy the aim in hospital administration should be towards the functional integration of geriatric hospitals with the general hospital.

(b) A portion of new building for geriatric wards is necessary to prevent the undesirable practice of consigning long-term patients to older wards of hospitals. Such buildings, whether new or old, should have regard for the functional requirements of a geriatric service.

(c) A primary aim of all institutions for care of the aged should be to increase their capacity for self care and to enable as many as possible to live independently again. It is important to preserve family relationships while in hospital and to encourage patients to return to their homes from time to time.

(d) There should be no arbitrary age limit for admission to a geriatric hospital (or ward), as a proportion of younger adult patients will in fact be admitted and provision should be made for their care. Admission should not, however, extend to children and adolescents for whom special provision should be made.

319. As stated in paragraph 318 (c) above, the primary aim in geriatric care is towards patient rehabilitation; this requires appropriate staffing by nurses who appreciate the importance of the prompt and earliest institution of a comprehensive rehabilitation programme with appropriate assistance from physiotherapists and occupational therapists who should play a vital role in a programme of adaptation to daily living with a view to the patients returning home at the earliest practicable date.

320. To assist in the progressive discharge of patients from hospitals, day wards play an important part. Few of these are as yet operating in New Zealand (see paragraph 78) whereas overseas their use is widespread. In the Board of Health Committee's Report, the functions of day wards are discussed, and several types described, based on their predominant purposes. They are:

(a) The psychiatric day ward.

(b) The ward whose function is to produce the maximum capacity for self care in patients who are disabled.

(c) To provide day accommodation for elderly people who are domiciled with younger relatives who have to be away at work all day.

(d) A department where elderly people may benefit by mixing together socially and by sharing occupational activities.

(e) To fulfil the function of an old people's club.

321. The Committee considered that the first two functions should properly be the charge of public hospitals and the third may, in particular cases where special circumstances exist, be their responsibility also. The fourth and fifth functions are considered more properly undertaken by organizations outside the hospital.

322. In emphasising the great importance of day wards in the care of the elderly at home, the Committee also recommended that all Hospital Boards should investigate the needs in their district for domiciliary services in the widest possible range and implement such services as are required. Voluntary agencies should also be encouraged to extend their activities by providing domiciliary services to supplement those provided by Hospital Boards.

323. On the subject of private geriatric hospitals, the Committee believed that these should be located in association with private general hospitals rather than with residential homes, and that the approval of subsidies for the building of new private geriatric hospitals should be considered in the light of the overall needs of the hospital region. It was also of the opinion that the medical control of subsidised private hospitals should be in the hands of suitably qualified and experienced medical men, directly responsible for admission, treatment and discharge of patients.

Housing the Elderly

324. Since 1950 the objective of policy in housing the elderly has been to encourage local authority responsibility and participation as much as possible. As a means of achieving this, subsidies and low-interest loans are offered by central government to territorial local authorities for approved schemes. Through its various agencies, Government provides technical and other advice to local bodies for this purpose. Responsibility for the central administration rests with the Department of Health.

325. By means of such a partnership, the majority of New Zealand urban local authorities, together with a number of county councils, have established or are undertaking housing schemes for the elderly. As a result, local government is now providing housing in suitably designed flats for approximately 5,000 elderly tenants. The programme for additional flats is being sustained at an annual increase rate in the region of 600 units.

326. The predominant need is that of lone elderly persons and in the main, flats are designed on a bed-sitting-room basis. Capital costs and rentals are subject to policy limits. Assurances are required from local authorities that eligibility will be limited to persons "60 years and over, who have a housing need and whose resources are insufficient to provide their own housing".

327. The important contribution which suitable housing makes to the welfare of elderly people, is receiving increasing recognition within the community. Evidence of this is the measure of financial and other support which a number of local authorities have received from voluntary agencies with specific housing projects.

328. As a supplement to the efforts of local authorities, religious and welfare organisations are also making a considerable contribution to the provision of housing for the elderly. In some cases, flats are built in association with homes or hospitals for the aged, in others they are established as separate settlements within the community. Providing these schemes are for housing elderly persons in similar circumstances to those under the local authorities policy, they are eligible for subsidy assistance from Government. Some 650 flats have been built in this way. Recently Government has approved a new scheme for the granting of State Advances loan finance to both local authorities and religious and welfare bodies to enable them to provide flats for the elderly who have a housing need but do not qualify for subsidised flats.

329. In its report[14] referred to above the Committee for the Care of the Aged recommended that residential homes should be limited in size to a range of 30–35 beds with 40 beds the upper limit and that the selection of residents should be made on the basis of full medico-social reports in consultation with the applicant's own doctor. It also recommended that capital subsidies for old people's homes should be contingent upon organisations giving satisfactory evidence that their admission policies provide for the elderly who, by reason of physical or mental infirmity, are incapable of living independently in their own homes, even with the support of ancillary services.

330. The practice in some homes of providing a few beds for short-stay care was commended, and the Committee also considered that the requirements of the more dependent home residents for increased services warranted the payment of a supplementary grant to permit the organisation to employ adequate staff.

The Old People's Home Regulations 1965 provide for the licensing of Old People's Homes accommodating six or more persons who have attained the age of 65 years. The licensing is at present administered by the Department of Health but consideration is being given to transferring this responsibility to local authorities.

Rehabilitation Services

331. The majority of people, following sickness or injury, are able to return to their normal occupations and activities within a reasonable time and do not need any special help or advice to speed recovery. Rehabilitation is needed for about 10 percent of sick and disabled people at present treated in public hospitals, and in most of these cases it is merely necessary to provide a service for the more rapid and complete restoration to former productive capacity. In only 1 percent of these people where continuing disability prevents them from resuming their former employment are more elaborate retraining activities necessary.

332. While Hospital Boards are enabled to provide occupational therapy and physiotherapy services in their institutions, it is only in the larger centres that specialists in this field are available to develop departments of physical medicine. Some hospitals have established day centres for rehabilitation and some have domiciliary services.

333. After all medical, surgical and nursing procedures are completed there is a need to continue to build up general health, muscular strength and mental alertness by appropriate physical exercise and occupational activity graduated up to that required by their normal occupation. This need is being met in different ways. At the Palmerston North Hospital a

special ward is planned to which patients can be transferred as soon as they become independent of nursing procedures. Here they will be able to look after themselves and be occupied in vigorous rehabilitation activity. This provision is in line with the recommendations of the Royal Commission of Inquiry into Compensation for Personal Injury in New Zealand.[35]

334. At Otara on the outskirts of Auckland there is a civilian rehabilitation unit where facilities exist for full medical rehabilitation and for a measure of industrial or vocational rehabilitation. Practice at the Queen Elizabeth Hospital at Rotorua is to enable a number of patients to graduate on to the staff of the hospital in a supernumerary capacity. They are then employed in such occupations as nursing, clerical work, engineering, painting, maintenance and gardening. Where more specific rehabilitation is required, an organisation such as the Disabled Servicemen's Re-Establishment League has Training Centres which can provide:

(i) Assessment of aptitudes and training in tolerance for work.

(ii) Training in special trades and manufacturing procedures.

(iii) Sheltered employment for those who are unable to compete in the labour market.

(iv) Occupational activity for those incapable of economic work output.

335. The National Civilian Rehabilitation Committee set up by Government in 1964 and comprising a senior representative of each of the Departments of Health, Social Security and Labour has completed a survey on the present facilities for the rehabilitation of civilian disabled and its report has been considered by Government. One recommendation already accepted is that as from 1 April 1969 the Disabled Servicemen's Re-Establishment League will act as Government's agent in all matters pertaining to the assessment, rehabilitation, training, sheltered employment and placement of disabled persons, and modern facilities are to be set up at the six centres of the League for these purposes. A measure of financial assistance is also to be provided to approved private and voluntary organisations engaged in the training of disabled persons for employment.

Intensive Care Units

336. Intensive therapy is the first phase in the general concept of progressive patient care which aims at the grouping for care and treatment of patients with approximately the same needs of skill and facilities. In this way it becomes possible to make the maximum efficient use of clinical resources, and allows for the concentration of medical and nursing care where most needed.

337. The intensive therapy concept involves the grouping of expensive and specialised equipment and the use of selected staff in units where the need is such as to make best use of the resources. Intensive therapy must be confined to a small percentage of patients or it ceases to be intensive therapy. Expectations are that only a small percent of acute patients will at any time be in need of the facilities of an intensive care unit. The random nature of the demand requires capacity beyond average and in practice a unit should be not smaller than 4 beds nor greater than 8 beds. The intensive care unit unlike the theatre recovery units should be staffed continuously and be fully available at all times.

338. It is intended to serve all specialties but increasingly where specialties are established there are requests for intensive-care units

exclusive to particular specialties. Any larger scale adoption of such "separate" intensive-care units defeats the purpose of efficiency and by increasing the demand for skilled staff threatens effectiveness. However, in the case of patients who are aware of their surroundings, but in need of intensive care, such as coronary patients, a case can be made for nursing them in a specialist unit outside of the general intensive care unit, and free from the disturbing environment which may be associated with it.

339. As has already been mentioned above, specialist anaesthetists are playing a growing role in the operation of intensive-care units, and the increasing complexity of the monitoring and other equipment used in these units has made necessary also the employment of technical staff trained in the maintenance and repair of electronic and other apparatus.

Radiological and Laboratory Services

340. At the request of the Department, the New Zealand Branch of the College of Radiologists of Australasia has appointed a standing committee to collaborate with the Department in considering the purchase of diagnostic X-ray equipment.

341. This Committee has suggested that hospitals could be divided into four categories according to their size and degree of specialisation; from this it would be possible to get some indication of the degree to which they need be equipped with complicated and expensive X-ray equipment. Some basic guidelines on the provision of necessary equipment have been drawn up by the Committee.

342. Similarly the Regional Advisory Pathologists appointed by the Department are able to guide and assist laboratories in their areas of responsibility and to advise on the purchase of laboratory equipment considered necessary as a result of their routine visits to laboratories.

Central Sterile Supply Services

343. In 1962, at the request of the Minister of Health, the Board of Health set up a Special Committee to advise on the facilities for sterilisation to be provided in hospitals, allied institutions and other services, and the report of this Committee[15] sets out general principles and current New Zealand practice in sterilisation, future trends, and a summary of conclusions and recommendations. It is intended to re-convene the technical section of this Committee from time to time as and when problems of sterilisation procedures in hospitals arise.

344. In the Committee's report it is pointed out that in the final analysis a central sterile supply department is intended to provide in a hospital or a group of hospitals all necessary sterile supplies. This is the surest way of eliminating a multiplicity of points at which sterilisation of doubtful efficiency may be carried out. The aim is to remove virtually all sterilising from wards and departments leaving only sanitising procedures to be carried out in these areas. Special circumstances may determine that even theatre equipment may come under the responsibility of C.S.S.D. The scope of supplies differ in institutions of different size and a practical division can be made into three groups:

(1) Metropolitan and large regional base hospitals where the aim should be a central factory supplying all institutions and district services.

(2) Provincial hospitals where an autonomous C.S.S.D. adapted to local conditions operates from within the hospital.

(3) The small hospital where a limited range of sterile supply can be associated with the operating theatre.

345. Individual establishments depending on an outside source for sterile supplies will still require limited sterilisation facilities for certain items of equipment. Special departments, e.g. laboratory services, pharmacy, radiology, and milk rooms of paediatric and maternity units may require separate facilities for their special needs. Operating theatres traditionally carry out their own preparation and sterilisation although there are many exceptions to this.

346. The introduction of commercial sterilisation using radiation from a cobalt source (gamma ray sterilisation) towards the end of 1966 has led to the need for reappraisal of the size and scope of central sterile supply services under hospital control since these are inversely proportional to the amount of sterile equipment received from outside sources in prepackaged sterile and disposable form. New aspects to be considered are the acceptance of standardisation in such fields as dressing packs, syringes and needles, catheters and other items in general use, adequate storage facilities for the prepacked sterile supplies and proper facilities for the disposal of the disposable equipment after use.

Catering Services

347. There has been much work done, and pilot schemes carried out overseas in the field of catering services in hospitals. Perhaps one of the methods of food preparation and handling which has greater implications than any other is the use of pre-prepared, deep-frozen foods, known as "convenience foods". There is evidence of a wider acceptance of this method of food preparation, and its adoption would mean fundamental changes in conceptions of kitchen planning. The Department of Health has for some time been aware of this, and trials are already in hand to evaluate the system for use in both general and psychiatric hospitals.

The Department has also undertaken a comprehensive survey of housekeeping services in the hospital field. The results have been circulated for the guidance of hospital boards.

Laundry Services

348. As in the case of Central Sterile Supply Departments, the trend for laundry services is one of centralisation so that the maximum use can be made of the expensive apparatus required, using a minimum of staff. Examples of this are in the Northland Hospital Board district where a new laundry at the base hospital at Whangarei has recently begun handling all laundry from the Board's institutions throughout the Board's District, and similarly in Southland. Hawera in the Taranaki Hospital Board district is also handling all laundry from Stratford and from Patea in the Wanganui district.

349. The Department has built a new laundry at Seaview (Psychiatric Hospital), Hokitika, which is intended to deal with the laundry of the Seaview and Westland Hospitals. Planning is also well advanced to use the Dunedin Hospital Laundry to service the Seacliff group of psychiatric hospitals as well as the Board's institutions. Working drawings are being prepared for a new laundry at Sunnyside (Psychiatric) Hospital to handle its requirements and also those of Templeton (Psychopaedic) Hospital and Queen Mary Hospital, Hanmer. The plans also allow for further expansion when necessary to meet future requirements of the North Canterbury Hospital Board.

It is proposed to build a new laundry at Oakley Hospital to handle the laundry for Oakley, Kingseat, Raventhorpe and Mangere psychiatric and psychopaedic hospitals.

350. In Auckland, the Board plans ultimately to centralise its laundry facilities at Te Papapa, to cover the requirements of all its institutions.

Ambulance Services

351. No change is proposed in the present system whereby Boards are responsible for ensuring that there are adequate ambulance facilities in their districts. These are operated by organisations such as St John Ambulance Association, or by the Board itself and are co-ordinated by the Ambulance Transport Advisory Board which has been set up to advise the Minister of Health on the operation of ambulance services.

PRIVATE HOSPITAL POLICY

352. Government's policy is one of encouragement of private hospitals in areas where there is shown to be an overall need for hospital beds. To this end it provides loans to private hospitals and daily patient benefits, the rates of the latter being periodically reviewed.

353. The question of providing private beds in public hospitals as is the policy in Great Britain, has been raised on occasion in New Zealand but the climate of opinion has not been such as to further this.

EDUCATION POLICIES

Medical

354. Paragraphs 223–230, dealing with current trends, were devoted to changing attitudes to education, and gave a summary of the policies being adopted in New Zealand in respect of under-graduate and post-graduate medical education. In the light of present approved planning, it is intended that the intake of medical students at Auckland should increase to 100 in 1973 and 150 by 1986. At Otago, in conjunction with the peoposed extension of branch faculties touched on in paragraph 103, an increased intake of 150 in 1972, and 200 by 1986, is envisaged.

Nursing

355. An examination of existing trends in nursing education in New Zealand and overseas (see paragraphs 231–242) points to the need to formulate policies and plans both for the immediate and distant future. This involves underlining the purpose of nursing and how best to prepare nurses in different categories in order that the country will receive the kind of nursing service it requires.

356. A nurse is a practitioner. She works as a member of the health team. Her function is threefold; supplying direct nursing, health teaching and undertaking delegated medical care. For this work she requires skills, both social and technical, based on knowledge and understanding. A W.H.O. Expert Committee on Nursing[36] points out that:

> "Any complete nursing service will make provision for service in the following stages of health and illness:
>
> 1. The health maintenance or health attainment stage.
> 2. The increased risk stage.
> 3. The early detection stage.
> 4. The clinical stage.
> 5. The rehabilitative stage."

Additionally the service must make provision for research and teaching.

357. The Report also states:

"A nursing personnel system based on the following categories would prove effective:

(1) Nursing personnel corresponding to the 'nurse' . . . defined (as) A person who has completed a programme of basic nursing education and is qualified and authorised in her country to supply the most responsible service of a nursing nature for the promotion of health, prevention of illness and care of the sick. This nurse should have had a broad general education, as well as nursing training with a strong physical and social science basis, thus providing a broad and sound foundation for the effective practice of nursing and for advanced nursing education. Those in this category should be able to develop their ability to provide the most skilled nursing care in the hospital or community service and their judgment to make independent decisions based on scientific, clinical, and management principles: that is to say, they should provide service at a professional level.

(2) Nursing personnel able to provide generalised patient care of a simpler nature requiring both technical and interpersonal skills. Those in this category should be able to provide preventive, curative, and rehabilitative care that takes account of the psychological and social needs of the individual patient.

(3) Nursing personnel able to perform specified tasks related to patient care that require considerably less use of judgment. They should be able to relate well to patients and to carry out dependably, under supervision, the tasks for which they have been trained."

358. In studying the present situation in New Zealand, and taking the above recommended system into account, it could be postulated:

1. That ultimately one-quarter of all nurses (i.e. those in the first category) should receive their education in a University School of Nursing.
2. That ultimately the remaining three-quarters should receive their education within the system of general education, i.e. Technical Institutes.
3. That at both these levels there should be planned, supervised clinical experience in all health agencies in the community, financed by a bursary or grant scheme.
4. That the third level should be ultimately part of the housekeeping staff and trained on the job.

359. The Department of Health supports, in principle, university education to prepare some nurses for leadership positions in nursing service, for teaching and for research, and is planning towards this end.

360. It would appear that the second and largest category of nurses will continue in the meantime to receive their preparation in hospital schools of nursing. The question that needs to be studied is whether this is the best environment in which to prepare this category of nurse? A W.H.O. nursing consultant recently had this to say about similar preparation of nurses in Australia.[37]

"At the age of seventeen, the entrance age to schools of nursing, students are cut off from any educational programme that would enlarge their vision, develop their potential resources and make

them aware of the social, political and cultural problems they must face as citizens. Nursing education, at basic level, remains a trade which students learn over a period of three or four years in a very limited environment. Perhaps no other group of young people in modern society receives such a narrow, restricted and unimaginative type of education."

361. Many nursing leaders in New Zealand agree with the above comment and believe that the second category of nurse would be best educated in a Technical Institute. A way to test this thesis would be to establish nursing as a pilot scheme within a Technical Institute and to measure the result in relation to the cost and quality of such a programme against an existing programme in a hospital school or nursing.

362. It is recognised that changes in the pattern of nursing education will occur very slowly. Planning for the future must therefore be accompanied by improvement of existing practice. The major short term aim is to consolidate existing programmes towards more effective use of existing resources. This can be achieved by incorporating psychiatric, psychopaedic and obstetric nursing into the three year general nursing programme and at appropriate levels into the community nurse programme thus reducing the number of schools of nursing. This would avoid duplication of expensive facilities and better utilise the dangerously low number of prepared tutors.

363. Planning is also directed towards the consolidation of existing post-certificate courses, many of which are uneconomic in regard to time, effort and output.

364. The Post-graduate School for Nurses has in the past tried to be all things to all nurses. It has conducted short orientation courses for public health nurses, ward sisters and tutors. It has organised short continuing education courses for every category of registered nurse. It has combined these functions with its main function of conducting a year's diploma course in nursing to prepare senior nurses for leadership positions.

365. Years ago this was probably workable, today it is impossible. It is obvious that orientation programmes are the responsibility of employing agencies and that continuing education courses could be conducted locally and regionally instead of nationally for all but a few, e.g. nurses in senior administrative and teaching positions.

366. If nursing education ultimately moves within the stream of general education there will still be a clear need for the Post-graduate School or comparable facilities with courses for those nurses who either do not qualify or do not wish to enter a university programme to continue their education. In future some courses should not be restricted to nurses but should be planned as multi-disciplinary courses for health workers.

Other Occupations Auxiliary to Medicine

(a) Physiotherapy and Occupational Therapy

367. The first objective of the schools of physiotherapy and occupational therapy is to increase the supply of qualified personnel in order to fill existing vacancies, to allow for desired increases in establishments to provide full coverage in all areas, and to enable future expansion and development of these services throughout the country. The shortage of staff in both disciplines is fully recognised, and plans are in train to improve the position. The Department has agreed in principle to the establishment of a second school of physiotherapy at Auckland, and it

is hoped that arrangements can be made for a co-ordination of the training of physiotherapists and occupational therapists there, insofar as the two disciplines have elements common to their curricula. As a logical first move in this direction, discussions have recently been held with the Auckland Hospital Board on the possible transfer of administrative control of the Occupational Therapy School at Oakley Hospital, from the Department of Health to the Board thus bringing it into line with the physiotherapy school.

(b) **Dietetics**

368. At present hospitals provide the entire post-graduate course for dietitians and in the future policy for the training of these personnel, consideration must be given to the development of existing programmes.

369. It is envisaged that in future, a School of Dietetics might be established within a University, offering a post-graduate course, the practical and clinical experience still being provided, as at present, by hospitals in the area.

(c) **Laboratory Technology**

370. The trend in the training of medical laboratory technologists is for the basic training lectures and demonstrations to be given at Technical Institutions, where such are available, and for the practical and clinical work to be carried out under supervision, in hospital laboratories recognised by the Medical Laboratory Technologists Board. For students attached to outlying hospitals where Technical Institution facilities are not available, a correspondence course, arranged by the Auckland Hospital Board is at present available, and it is possible that later this responsibility may be taken over by the Technical Correspondence Institution, once the necessary course has been written. The Training Sub-Committee of the Medical Laboratory Technologists' Board was authorised by the Department of Health to act as its agent in exploratory discussions with the Technicians' Certification Authority on the establishment of a Medical Laboratory Technology Option in the New Zealand Certificate of Science. This has recently been approved.

371. The question of declaring the occupation of a Medical Laboratory Technologist as a registrable occupation under section 3, Part I of the Medical and Dental Auxiliaries Act No. 42 of October 1966, is at present under consideration between the Department, the Medical Laboratory Technologists' Board and the Institute of Medical Laboratory Technologists.

372. Recently approval was given by the Department for the Institute to arrange training courses and conduct examinations for Medical Laboratory Assistants.

MEDICAL RESEARCH

373. In 1964, Hospital Boards were informed by the Department of a Cabinet directive "that the Medical Research Council should be the co-ordinating body to advise the Minister of Health on the authorisation of all medical research which need to be conducted on the premises of public hospitals". Council reports annually to Parliament.

374. Since that time the functions of the Minister of Health have been extended by section 2 of the Hospitals Amendment Act 1966 which amended section 3 of the principal Act by adding the following paragraph:

"(aa) To encourage the provision and maintenance by Hospital Boards, to such extent as he considers necessary, of services and facilities for the advancement of medical education and research at or in connection with hospitals".

375. Following this amendment, Boards were requested by the Department in April 1967 to furnish full and up-to-date particulars of the scope and extent of medical research being carried out as specific projects or as the continuing work of a medical research unit. Half-yearly returns were asked for and were supplied by Boards until June 1968 when Boards were advised that the extent of medical research being conducted on the premises of public hospitals had now been satisfactorily assessed. Boards are now asked to submit an annual return as at 31 March each year showing all items approved more than a year previously and for which re-approval is requested, and also all items approved during the twelve months ended 31 March. These returns are in effect treated as applications for authority to continue the research activity in the next financial year, and Boards are advised of the Medical Research Council's decision accordingly.

(b) PSYCHIATRIC HOSPITALS AND SERVICES

376. It is undesirable to plan for mental health needs as if these can be, or should be, separated from other health needs of an individual or a community. True, there must be adequate provision for many specialised services. But it has to be acknowledged that general practitioners and other professional groups, which may have no specific association with the specialty of psychiatry, have a very big contribution to make in the treatment of many people with mental and emotional problems or handicaps. To make the most effective use of available resources and therefore to provide the most efficient care for patients, continuity between care in the community and care in hospitals is essential. Areas of responsibility in both the professional and the geographical sense, must be clearly but not too rigidly defined. In the ideal situation mental health services are integrated with all other health and hospital services with the greatest possible use made of shared resources, whether these be physical facilities or professional staff.

377. A number of functional elements are combined to provide for the total needs of a mental health service. There is no standardised pattern in which this combination must be arranged. Variations to meet both local conditions and individual professional preferences are desirable and to be encouraged. It is possible to identify a number of groups for which special provision should be made; but it is not necessary that this provision should always take the same form. For example, a geriatric service might include appropriate provision for geriatric patients who develop acute psychiatric illness, without necessarily having to locate this element of the geriatric service within the psychiatric service. By contrast, there are a number of regions in which psychiatric services are at present making a substantial contribution to the overall geriatric needs of the region. Where a geriatric complex is already in operation within a psychiatric hospital it is clearly more efficient for this to provide the psychiatric services to geriatric patients in the region. But when a new geriatric service is being planned it could well include provision for the psychiatric needs specific to geriatric services.

378. Traditional boundaries as between hospital and community or hospital and hospital either have to be very extensively modified or entirely abolished if a mental health service is to be seen in functional, rather than in architectural terms. Correlation of services in the community with services provided in hospital is essential. It cannot be too often reiterated that the "hospital" and "community" components are inter-related aspects of a total health service. They are *not* alternative types of service. It follows that professional staff in all categories should desirably have some links with both elements of the health service to which they belong.

379. Staff of a hospital must be involved in outpatient and community activities. In the same way general practitioners and specialists in private practice should be encouraged to hold a part-time hospital appointment wherever practicable. Particularly important is the "consultant" work of specialist staff in many categories whose experience should be readily available in this role to professional workers in other spheres. This requirement extends to social workers, psychologists, nursing staff (particularly those with a home-visiting role) and occupational therapists; it is not purely a medical role. District and Public Health Nurses, whose role is primarily within the community, should have appropriate in-service hospital experience and should be thoroughly familiar with routine channels of communication to their professional "opposite number" in each hospital.

380. Voluntary organisations should be encouraged to co-operate with both community and hospital programmes. A senior member of the professional staff, appropriately a social worker or a nurse in many instances, should be responsible for the day to day guidance and direction of voluntary helpers in any hospital setting. It is to be expected that other members of professional staff will have links with voluntary organisations and may well take part in selection and training programmes for voluntary workers. Community participation in the work of mental health services must be part of any comprehensive programme. Without this, mental health services, no matter how efficient technically, tend to be isolated to some extent from the community which they serve and in consequence must be less efficient.

381. Reference has already been made to the need for flexibility in the pattern of services as between different localities. This is particularly so when there are problems of both urban and rural populations to be met. It is currently fashionable to lay too much emphasis on the importance of providing psychiatric treatment as close as practicable to the patient's own home. As a generalisation this must receive support. It is, however, subject to certain limitations:

(i) It is impractical and uneconomic to disperse specialised psychiatric services too widely. This observation applies with particular cogency in the present situation of acute shortage of experienced psychiatrists and supporting staff.

(ii) It will not normally be economic in terms of psychiatric staff to provide a specialist service for a population of less than 50,000. (This figure will sometimes have to be modified in the light of special geographic factors.)

(iii) It must also be emphasised that a psychiatrist working in a psychiatric team is very much more effective than he can be when working without appropriate paramedical support.

Psychiatric Services in the Community

382. The trend in psychiatry is now firmly directed towards treating as many patients as possible in their normal surroundings. If admission to hospital is necessary, then early return to the community is one of the aims of treatment. However, early discharge must not become the over-riding consideration. It seems certain that the trend to community care will continue and accelerate. The major demands thus created are discussed below.

383. Newer forms of psychiatric treatment, particularly improved medication, make it possible to discharge the majority of admissions within a few weeks or, at the most, a few months. Patients are restored to their family circle and to their employment before their place in the community has been lost. Such methods of management mean, however, that there are many people in the community who have recently suffered major psychiatric breakdowns. In former days they might have spent long periods, perhaps years, in psychiatric hospitals. To maintain such patients in the best possible health it is necessary to improve greatly the psychiatric facilities available outside hospital.

384. As methods of treatment have improved, it has also become possible to avoid hospital admission for many patients by instituting earlier treatment. This obviously requires the provision of increased early treatment facilities. At the present time the greatest limitation on all such schemes is the supply of trained personnel. The old fashioned style of custodial care, dictated by the therapeutic limits of the times was economic in staff requirements. Keeping patients out of hospital may require fewer hospital beds, but it does require considerably more and better trained staff.

Day and Out-patient Services

385. "Out-patient" services are those where the patient attends at the hospital clinic for some treatment or assessment. Such visits seldom exceed an hour at any one time. "Day" services involve the patient's attendance for longer periods. (In general any "day" attendance of less than a half day is unlikely to be effective. Regular attendances five days a week for three months or even longer are not unusual.) The essential distinction is that the "day" patient attends in order to participate in a therapeutic programme. This may involve some individual therapeutic procedures for the patient, but is likely to rely considerably on group methods. Occupational therapy, especially planned diversional therapy, and sometimes specific occupational or domestic re-training may all be provided. In general, emphasis is laid on social experience in the "day hospital" setting.

386. The experience of Sunnyside Day Hospital, Christchurch, over the past five years indicates quite clearly that some admissions can be avoided and some in-patients can be discharged earlier by the use of day facilities. Their value must not, however, be measured only in relation to any changes in hospital admission pattern. They provide an extension of psychiatric facilities—not merely a substitute for hospital treatment. At the present stage of development, an improvement in psychiatric out-patient services often leads to an increased, rather than a decreased, demand for hospital admissions from a particular area. This appears to reflect a greater realisation by the public and general practitioners of the possibilities offered by modern psychiatric treatment.

387. Two main patterns of service exist—

(1) Out-patient and sometimes day-patient service may be an extension of an in-patient unit, at a general or a psychiatric hospital. This is economical of staff since it involves little travelling time for them, and day patients can usually be involved in the same treatment programmes as are used for in-patients.

(2) Out-patient facilities may exist at some distance from the parent hospital. To be effective treatment units, isolated clinics must be visited a minimum of once weekly. Clinics which are visited less frequently can only effectively provide diagnostic assessment or follow-up care. Day patient treatment is limited by the distance which patients can be expected to travel in order to participate in such programmes. An hour's travelling time can normally be regarded as setting the limit to the boundaries from which day patients may suitably be drawn. Separate day hospital programmes can only be justified where a comparatively large and close concentration of population is found.

388. If general practitioners are expected to co-operate in psychiatric care, then the hospital must provide for assessment of cases at short notice. It is desirable that all prospective admissions to a psychiatric unit or a psychiatric hospital should be screened by trained staff. Many cases can be better treated as out-patients or as day patients, or diverted to more suitable accommodation, e.g. old people's homes. The same screening team will provide skilled help for psychiatric emergencies. Such arrangements are expensive in staff requirements, but are the basis of any sound psychiatric service.

Domiciliary Services

389. These may be divided broadly into two categories:

(1) Diagnostic and advisory: both psychiatrist and social worker have a role to play when called into consultation by the family doctor for a domiciliary visit. This is especially so if the basic question is whether or not the patient requires immediate psychiatric hospital care. Although comparatively time consuming, domiciliary consultation is a very desirable component of any mental health service. It is valuable not only in deciding the sometimes difficult problem of priority for beds, but also in giving psychiatrists immediate experience of social and domestic situations in the population for which the mental health service is responsible.

(2) Follow-up and after-care services: after discharge from psychiatric hospital many patients and their families have continuing problems. Expert help at this stage can be of great assistance and may often avoid relapse and readmission. Follow-up care may be a matter of support and advice to the patient, to his family, to his employer, to his landlady, etc. It also frequently involves supervision of medication, sometimes the adjustment of dosage, but most often encouragement to continue regular medication. There are many psychiatric patients whose stability depends on long continued and regular taking of prescribed medication. Frequently failure to continue medication is the main cause for relapse.

390. The pattern of follow-up care will vary according to where the patient lives in relation to the hospital. New Zealand's sparse and scattered population poses particular problems. Some patients living within easy

access of the hospital may be supervised medically by clinic visits. Many will need visiting at home or at work either by social workers or visiting nurses. The use of visiting psychiatric nurses is a recent development. To date, they have concentrated particularly on those patients requiring long continued medication. It is likely that an increasing proportion of nursing strength will be diverted to this type of work outside the hospital, particularly in urban areas.

391. An example of a very highly organised urban service of this type has evolved at Oakley Hospital, Auckland, in recent years. The success of the work of the visiting psychiatric nurses has been immediate and a significant number of what would otherwise be long-stay patients are maintained in the community by the work of this group. The actual arrangements for follow-up and continuing treatment are closely integrated with the psychiatric out-patient services of the hospital. They are specially designed to meet the needs of a group of patients who are not likely to be supported adequately by any other type of professional help available. Although there will at times be some overlap with the responsibilities of the hospital's social work department in the practical clinical situation, the assignment of the major responsibility for after care to either the social worker or the visiting psychiatric nurse is an easily made professional decision for the doctor responsible for the case.

392. For patients who live at a considerable distance from any psychiatric facility the responsibility for follow-up care must fall on local workers, principally the public health nurse and the general practitioner. It is essential that there should be full co-operation and interchange of information between these workers and the staff of the hospital or clinic responsible for the patient's initial treatment. For the public health nurse, especially when she is working in a comparatively isolated district it is also highly desirable that she should have local medical support either from a general practitioner or District Health Office. This may make the difference as to whether or not the nurse can operate effectively in the new sphere of psychiatric after care. It is wise to remember that not all general practitioners and public health nurses have had appropriate experience for this role. The psychiatric hospital must be prepared to provide suitable study opportunities for these groups. In the last four years Tokanui Hospital with its large rural catchment area has developed a most effective liaison scheme with the public health nurses of the region for the follow-up and support of discharged patients. This scheme, which is carried out with the full knowledge and consent of patients' own doctors, cannot by the very nature of the patient population and the resources available be of the same pattern as that previously described as operating at Oakley Hospital. Nevertheless it is an appropriate and useful follow-up service when adapted to the needs of a predominantly rural population. Seacliff Hospital has in recent years similarly involved public health nurses in their after care of discharged patients.

Hostels

393. Hostels in the community, operated either by a hospital or by a religious or voluntary organisation, may fulfil a number of purposes. The important ones are:

(1) Short-term rehabilitation: This is essentially the function of a discharge hostel which provides a staging point in transition from the sheltered life in hospital to full participation in the com-

munity. Stay in such hostels is generally short. As part of successful rehabilitation the patient will be either absorbed into a family unit or placed in appropriate board or other accommodation within the community. General experience shows that the demand for beds in hostels of this type is by no means so high as might be expected but they serve a very useful function.

(2) Long stay: A proportion of patients cared for in psychiatric and psychopaedic hospitals could be accommodated in hostels in the community. A recent survey suggests that between 5 percent and 15 percent of long-term patients could be cared for in such circumstances, the varying percentage depending on whether or not some limited professional nursing would be available at the hostel. However, in practice there does not seem to be as great a demand for such hostels as these figures suggest. If a patient is well enough to live in a hostel with very little nursing supervision then he can often be placed elsewhere. If an appreciable level of nurse dependency is involved the hostel becomes expensive. Despite these disadvantages, a hostel has the real advantage of enabling some patients to take a step nearer to normal life. As with discharge hostels, long-stay hostels have an important place for a small group.

Industrial and Rehabilitation Workshops

394. In both psychiatric and psychopaedic hospitals the trend in recent years has been very much towards industrial occupation for patients; particularly those in the long-stay category. In the ideal situation such programmes within hospitals have direct links with rehabilitation programmes in the community and whenever possible make use of common workshop and training facilities.

395. There should be co-operation to ensure that rehabilitation programmes are not in direct competition with one another, for the allocation of work or of patients. There must be distinction made although not a rigid demarcation drawn, between the patient for whom a comparatively short but intensive programme of industrial training or re-training is required, and the patient for whom a much longer programme at a slower tempo is needed. A significant proportion of patients from this second category will ultimately be found a place in industry. In small towns the prospects for such placement may not be so good; but in any case success is likely to depend on knowledge of the special needs of local industry and its potential for absorbing the handicapped person into useful work.

396. A realistic rehabilitation programme is closely geared to the patterns of industry in the area which it serves. As is mentioned in the section on the psychopaedic hospital, it is worth emphasising that there are many common needs for patients requiring rehabilitation, who may be suffering from a variety of handicaps physical and mental. There is much to be gained by providing common facilities and administration, with special provisions for some selected groups.

397. Sheltered employment particularly for the mentally subnormal may need to be a lifelong provision. This, too, should take account of the particular advantages and needs of the local industrial situation and should be on a reasonably realistic economic footing. If a rehabilitation workshop shows a substantial profit, the likelihood is that it is either

admitting people who do not really need its services; or it is retaining too long, people who are fit for placement in ordinary employment. By contrast, if the workshop shows a very substantial loss, it is likely that many of those attending would be more appropriately placed in day-care centres.

Day-care Centres

398. The proper function of a day-care centre is to provide a place where a person with a serious handicap can be appropriately looked after for at least several hours of the day. The aim is to assist families who are continuing to provide care, in the home setting, for a member with a fairly severe degree of handicap. The mentally subnormal, the geriatric patient and the deteriorated psychotic patient can sometimes be cared for by a family who have no wish to be relieved of their responsibility in this matter, provided that day-care services are available. Ideally such services are supplemented by short-term hospital or hostel placement in times of family crisis.

399. The work at day-care centres may well be associated both physically and administratively with other facilities such as industrial rehabilitation workshops, hostels and day hospitals; but when such arrangements are made there must be adequate separation of the groups and the separate staffing needs of the different categories of patients must be recognised and provided for.

The Psychiatric Hospital

400. The majority of psychiatric patients in New Zealand are at present being cared for in separate psychiatric hospitals. During 1968 average occupied psychiatric beds in general hospitals numbered approximately 100–120. For the same year average occupied beds in psychiatric hospitals were 10,270.

401. The role of the psychiatric hospital may be considered under the headings, Functions, Desirable Size and Location, Possible Alternative Provisions. Functions may be further sub-divided into—

In-patient Care:

(a) Acute Patients.
(b) Long-stay Patients.
(c) Special Groups.

Regional Functions:

(a) Training.
(b) Out-patient, Day Patient and Domiciliary Services.

In-patient Care

402. *Acute Patients*

For many years to come our existing major psychiatric hospitals must continue to be responsible for the largest number of psychiatric patients. To maintain the highest standards of clinical practice and of staff recruitment in these hospitals, their value and responsibilities as the mainstay of psychiatric services needs to be recognised. They must continue to be up-to-date with advances in treatment. Their staff should also continue to have experience in handling all types of psychiatric problems. For all these reasons it is necessary for major psychiatric hospitals to maintain wards for acute admissions and short stay cases.

403. To ensure a proper distribution of work between these hospitals and the planned increase in general hospital psychiatric units, and to encourage clinical responsibility on a regional basis, it is desirable to define catchment areas for acute admissions.The acute admission wards and their supporting short stay convalescent wards will comprise a sector of a psychiatric hospital in which there is rapid turnover comparable to that to be expected in a general hospital psychiatric unit.

404. *Long-stay Patients*

The rise in discharge rate and greater emphasis on short stay, rapid turnover cases has been spectacular in the last ten years. It is thus some surprise to be reminded that at the present time 80 percent of all patients in Mental Health Division hospitals have been in hospital for more than one year. There are still a great many patients for whom these hospitals fulfil an "asylum" function. As the treatment of psychotic illness improves, the proportion of long-stay patients suffering from mental subnormality rises. This means that the number of long-stay patients cannot be expected to decrease rapidly. In the last five years their proportion of total patients has dropped from 89 percent to 80 percent and their absolute numbers have decreased. As methods of treatment and management in psychiatry continue to improve, it can be expected that the numbers of long-stay patients will correspondingly fall; but at present there are no solid grounds for believing that this fall will be dramatic.

405. It follows from the above that much of the programme of a psychiatric hospital must be aimed at providing a community life for patients who will spend a long time there. Their needs include training and occupation during "working hours", recreation and diversion during leisure periods, and space in which to enjoy these activities. These diverse activities can be made more meaningful and more likely to lead to the patient's rehabilitation when it is possible to group patients with others of similar abilities and similar needs. It is essential to provide special facilities such as community centres, occupational therapy and industrial therapy units, and specially skilled staff such as training officers and clinical psychologists. With very small hospitals it is not economically possible to make such full provision, so that for hospitals of this type there is a minimum, as well as a maximum, desirable size.

406. *Special Groups*

Some groups of psychiatric patients require special facilities. These include patients who have been found to respond best to group treatment, e.g. adolescents and alcoholics. It may be difficult to arrange therapeutically viable groups of such patients in a small unit, and they may obtain more benefit from admission to a larger hospital having a special unit. Other patients may require a specialised physical environment, e.g. criminally insane, who may require security conditions; or psycho-geriatric and other patients with associated physical handicaps.

Regional Functions

407. *Training*

Because of the large numbers of patients and their wide range of clinical conditions, psychiatric hospitals will continue to be the major training agency for psychiatric workers. This is the only setting in which doctors and nurses can receive adequate experience over the full spectrum of psychiatry. For this reason all specialist psychiatric training should include a period at a psychiatric hospital to supplement any other training

given, e.g. in a general hospital unit. The psychiatric hospital will logically provide a major training facility for community mental health workers such as public health nurses, social workers, visiting psychiatric nurses and general practitioners. Levels of staffing should allow for such teaching responsibilities.

408. *Outpatient, Day Patient and Domiciliary Services*

It is desirable that there should be out-patient and day-patient services at the hospital itself. In addition to their usual value, they provide an opportunity of assessing patients referred for admission, and the chance of offering alternative methods of management. The staff of the psychiatric hospital will also normally provide out-patient and sometimes day-patient services in other suburbs or in other towns. They will play their full part in regional community services. Indeed the psychiatric hospital will often be the base for the mental health service of the region.

Size and Location

409. For the reasons mentioned above it appears that 200 beds is the minimum desirable size for a psychiatric hospital. The maximum desirable size is 800 beds. Hospitals above this size begin to lose in efficiency, show defects in internal communications and diminished ability to meet their patients' individual needs. Many existing psychiatric hospitals in New Zealand have above 800 patients. Future planning should be aimed at providing hospitals of between 200 and 800 beds, instead of adding to the older over-large institutions. Within this concept a new 400 bed hospital is currently being planned in Hamilton in conjunction with the Waikato Hospital Board.

410. Where a hospital already exceeds the optimum size some of the inherent handicaps thus imposed can be minimised if it can be internally organised into functional units of up to 400 beds each. In some cases the units may be allotted specialised clinical roles, each under the direction of a psychiatrist with an appropriate supporting medical and ancillary "team". In some cases it may be desirable to go to the length of dividing a hospital into two smaller distinct "hospitals" or units, which may be able to retain a common core of service and administrative support but should be separately staffed and clinically controlled.

411. It follows from the list of functions of a psychiatric hospital—acute treatment, out-patient and day-patient services, administration of regional services, etc.—that the hospital is best situated in or near an urban area. Because long-stay patients do require adequate space, it is justifiable to place the hospital on the fringe of an urban area, rather than at the centre, provided there is good public transport.

412. The psychiatric hospital should be adjacent to a general hospital. Though it is necessary to proceed with caution in planning further hospitals, hoping that advances in treatment may make them unnecessary, it is important to avoid situations in which urgently needed accommodation must be added to existing large hospitals. Land should be reserved now against possible future need in appropriate areas such as North Shore of Auckland, Bay of Plenty, Hawke's Bay, Palmerston North, Upper Hutt and Invercargill among others.

Alternative Provisions

413. It is often said that many patients at present in mental hospitals do not need to be there. It is true that many patients including some

quiescent psychotics, a proportion of the mentally subnormal group and some geriatric patients do not require the full facilities of such a hospital. However, they can only be discharged if suitable alternative care is available. One possible means of achieving a more rational distribution of beds is to replace accommodation when obsolete in the large hospitals by re-building in more appropriate locations. For example, many patients in the Cherry Farm group of hospitals originate from Southland. When the psychiatric unit is opened at Kew Hospital, it would be logical to build some long-stay wards in that area, transfer suitable patients, and demolish unsatisfactory buildings at Seacliff Hospital in the Cherry Farm group.

414. Some other patients could be transferred to hostels, the function of which is discussed in more detail in the section "Psychiatric Services in the Community". It is worth commenting here that, as in the general hospital field, small independent units such as convalescent homes or old people's homes have been found to be expensive to run and difficult to staff.

415. The great majority of patients who are at present in hospital do have needs for professional support and for special living conditions. Whether or not these requirements can be met in a setting other than a specialist hospital will depend partly on the willingness and resource of the administrators of the service concerned, and partly on the readiness of the local community to accept participation by patients in the social and recreational opportunities provided for other residents of the district.

The Psychopaedic Hospital

416. The psychopaedic hospital, like the traditional psychiatric hospital, is a multi-purpose institution. Within the broad classification of mental subnormality it caters both for a wide age range and for a very considerable diversity of types of handicap. There is a constant demand for psychopaedic beds and a particularly heavy demand for the admission of children in the 5–15 age range. Some controversy centres round professional views as to whether or not such children should be admitted to psychopaedic hospitals, as well as on various matters concerned with the size, design and location of such institutions.

417. It is a truism that a mental health service can fill as many psychopaedic beds as it can build. The demand for psychopaedic beds has remained high in recent years notwithstanding a very considerable build up of subsidiary services such as occupation centres, hostels and sheltered workshops in local communities. Furthermore, in the total population of all hospitals of the Division of Mental Health the proportion of beds occupied by the mentally subnormal has steadily increased and it is likely in ten years time to exceed 60 percent of all available.

418. There has long been argument about the desirable size of a psychopaedic institution. It is undoubtedly more economic to provide a wide range of specialised services at a comparatively large institution than to do so for a small unit of 20 patients. In speaking of what is economical it is not solely money that must be considered. The number of professional people available with special skill and experience is strictly limited and is unlikely to increase at a very spectacular rate in the immediate future. The principles of concentration and conservation of specialist skills apply every whit as forcibly in this area as in others.

419. There can be no doubt that the theoretic ideal is to provide small domestic type units in which groups of between six and ten patients are

housed in as close to a family type of setting as it is practical to achieve. While there are undoubtedly benefits to patients through the provision of higher staff ratios and the handling of small groups, the tangible returns are difficult to measure. A further factor to be considered is the problem of caring for certain categories of patient, especially those with associated physical handicaps and personality disorders referred to below. A number of these categories are quite unsuited for care in the small "domestic" type of unit.

420. There is a very real need for some objective evaluation of claims, which have been made rather frequently in recent years, about the efficacy of small units. Notwithstanding the difficulty already referred to of measuring tangible consequences of the use of such units, the point at issue is of sufficient importance for the Department of Health to have embarked on plans for a pilot project. A special group of small units is therefore to be built as part of the psychopaedic complex at Tokanui Hospital. These units will also be designed to test the suitability of "domestic" type of construction. While this is undoubtedly cheaper in terms of immediate capital outlay, it remains to be seen whether or not maintenance costs can be kept to a realistic level.

421. Broadly speaking the psychopaedic hospital caters for the following types of cases:

(1) The severely subnormal. These patients require constant care and close supervision. Their response to training can never be very great, although recognisable improvements can be achieved under intensive attention. A high proportion are likely to need life-long care.

(2) Patients with major personality difficulties, psychoses and behaviour disorders associated with brain damage. The nursing needs and therapeutic limitations are similar to those for group (1) with the further proviso that a high proportion in this category may be destructive and aggressive. Here too, lifelong care is often necessary.

(3) Patients with associated major physical disability. These include the spastic and other locomotor disorders, major defects of the central nervous system, and special sense defects such as blindness and deafness. High staff ratios are necessary to maintain appropriate intensive care and training for this group.

(4) Patients whose families are unwilling or unable to provide them with appropriate care. These may range in age from infants to adults in the 50's and 60's. In some cases the children will have been rejected by the parents at an early age; sometimes even on medical advice. In the other age group the patients are likely to have been cared for by parents or relatives in the community for a good many years but now require what is in effect terminal care because there are no longer relatives available to provide for them. A high proportion of patients in this group, particularly in the second (older) category, can be appropriately cared for in the community, e.g. in a special hostel or a selected boarding-house. This may be sited by itself or in association with geriatric accommodation, or as a separate unit of a psychopaedic hospital.

(5) Patients who have been admitted to hospital for training with a view to ultimate rehabilitation. On the whole these will be in the younger group. Their admission will tend to be determined by the adequacy or otherwise of educational and training resources in the

community where they live. With the development of such resources in cities and larger towns there should seldom be justification for the admission of patients in this category except from smaller centres and rural areas.

422. Many of the particular functions of the psychopaedic hospital outlined in the preceding paragraphs can be provided quite effectively within the general design of a comprehensive health service. For example, a long stay annexe attached to a paediatric department of a general hospital can provide care for children with "multiple handicap" disabilities, particularly when these involve serious defects of the central nervous system. Units for the care of severely disturbed patients with psychoses or major behaviour disorders can be, and in some instances are, located at psychiatric rather than at psychopaedic hospitals. The care of the older patient whose family is no longer able to provide for his social needs, could well be integrated into a comprehensive geriatric service, with which in fact its aims and purposes have much in common.

423. The industrial training of the mentally subnormal of mild and moderate degrees may, with advantage, be integrated with the work of a general purpose rehabilitation unit. In the field of rehabilitation it is undesirable that there should be a fragmentation of either professional effort or material resources. Although the special needs of groups such as the intellectually handicapped must be recognised and provided for, the major need is for general programmes of rehabilitation and industrial training for *all* handicapped. Every effort should be made to bring together groups under a common administration with shared training and work, and emphasis should be placed on the common factors rather than the divergent needs of various types of handicapped patients.

Psychiatric Departments of General Hospitals

424. These usually have in the order of 15 to 40 beds which are either situated in the same grounds or in the general ward complex of the general hospital. They must have associated out-patient clinics and will usually cater for day patients, two factors which will seriously influence choice of location.

425. They should provide for diagnosis, consultation and treatment of the many psychiatric problems which are seen in the other wards and clinics of any general hospital. Such units also have a very important teaching function. Consultations in other wards, participation in staff discussions, formal teaching and the rotation of junior medical and nursing staff through the units may all be used to teach the importance of emotional factors in medical problems.

426. They form an important part and should be an active centre of the mental health services of their community and fully integrated with all other health services in the region. (In certain centres, e.g. Timaru and Palmerston North, health services will revolve round the general hospital unit.) In large cities where a major psychiatric hospital already exists it is essential that there is a true partnership and integration of services to the community.

427. The major advantage of a general hospital unit is that it can provide treatment in a setting which is conveniently situated and is easily accessible to the rest of the general hospital. The limitations of these units relate mainly to space, functional design and personnel. Because of competition from other departments, the number of in-patient beds which can be allocated to psychiatry on a general hospital site is usually

small. For similar reasons the space available for occupational therapy and recreational facilities is generally less than the optimum. As regards psychiatric nurses and social workers, general hospitals must at present compete with departmental hospitals and have often found it difficult to recruit suitably trained staff. There are obvious advantages to both parties in a freer interchange of staff between these units and the larger psychiatric hospitals.

428. Some limitations may be largely imposed on general hospital units by a hospital administration which does not readily accept that many psychiatric patients should be up and dressed and engaged in various activities. Other examples are the wide use in psychiatry of weekend leave, of day hospitals, and of night hospitals—patient care being shared between hospital and community.

429. The type of general hospital unit just described cannot economically accommodate long-stay patients, nor can it offer such patients the advantages of a comprehensive psychiatric hospital. When it is apparent before admission that a patient will require a long period of care in hospital, he should normally be admitted direct to a psychiatric hospital. However, even the best units will have some patients who do not respond as quickly as was expected. If these are not to accumulate, there must be readiness to transfer to long-stay accommodation. It follows that general hospital beds should maintain a rapid turnover, and so require high staffing ratios. As with day-patient and out-patient services, any mental health facilities which aim to operate with a small proportion of in-patient beds must have a compensating increase in staff, both in numbers and in levels of skill.

430. To date, general hospital units both in New Zealand and overseas have not always been well utilised as regards integration with other mental health services. This can result in the general hospital unit having a limited clientele and a narrow range of service with little relief to the load of the adjacent psychiatric hospital. Unified administrative control should help to overcome some of these deficiencies and achieve a better planned distribution of work.

431. In teaching, in consultation and in treatment, psychiatric units in hospitals are an essential adjunct to regional psychiatric services and any moves to extend their availability should be encouraged. An adequately staffed psychiatric department should be an expected facility in every major hospital.

Child Psychiatry

432. This sub-specialty calls for special mention. Requirements in this field can be subdivided into needs for in-patient care, both short-term and long-term, and for out-patient services in the community.

Out-patient Child Psychiatry

433. Child psychiatric services of varying levels of sophistication are at present provided by Child Health Clinics at Whangarei, Auckland, Hamilton, Palmerston North, Wellington and Christchurch, by the professorial unit at Dunedin and as a combined service by Nelson General and Braemar Psychopaedic Hospitals. Child Health Clinics began as a means of assisting with problems of physical health, but they have all found that the bulk of their work has been in child and family guidance. The work being done by these clinics in assessment and counselling in mental subnormality is worthy of greater recognition than is sometimes

recorded. Doctors and social workers from psychopaedic hospitals should, whenever possible, spend part of their time working in Child Health Clinics with benefit to the clinic and the hospital.

434. To be properly effective such clinics require the same therapeutic team as for an in-patient department, except for nursing staff. In addition it is vital that the clinic maintains active association with other community agencies, e.g. general practitioners, educational psychologists, teachers and medical officers working in schools, child welfare officers, speech therapists, teachers for the deaf, Intellectually Handicapped Children's Society, Crippled Children's Society, etc. The constant necessity for this multilateral approach to child psychiatry reflects the fact that the causes and results of children's disturbances are nearly always complex. It is important that all child psychiatrists allot a considerable proportion of their time to consultation and discussion with the numerous other groups involved in the field of child health and welfare.

435. Staff are much more important than buildings. An old house in a quiet street may be ideal as a clinic site, but a hospital based clinic can be equally adequate. Where there is an in-patient unit, it will be economical in time to have out-patient facilities nearby. This also allows flexibility in treating children as out-patients, day patients or in-patients according to their changing needs—an approach which is well illustrated in the Iona Unit at Braemar Hospital. A clinic attached to an acute unit has the advantages of ready access to special services. It must, however, remain constantly aware of the danger of becoming hospital-centred rather than community-orientated.

436. At present all Child Health Clinics are administered by the Health Department. There seems no sound reason why they should not pass to the control of Hospital Boards, in line with the general concept of unified control for all treatment services.

437. Many of the present clinics are not fully staffed, e.g. four Child Health Clinics have no fully trained child psychiatrist and three have no trained play therapist. Ideally such deficiencies should be rectified before further clinics are established. There are, however, two districts of particular need which deserve priority when further clinics can be started: South Auckland, with its population explosion, and Dunedin where the professorial unit has heavy teaching commitments and needs assistance with the clinical load. Establishment of children's psychiatric clinics in all provincial centres remains a desirable future aim.

In-patient Child Psychiatry—Acute and Semi-acute

438. While acknowledging the difficulties of estimating the need, the British Ministry of Health has recently suggested that an initial aim should be to provide 25 beds per million for child psychiatry.[38] These would accommodate cases of functional and organic psychiatric disturbance requiring short-term assessment over periods of up to two months. The British figures indicate a need for 60–70 beds in New Zealand. At present, apart from a few beds in the professorial unit in Dunedin, there is no provision of this type in New Zealand. Some cases are admitted to psychiatric wards in general hospitals, some to paediatric wards and some to psychiatric or psychopaedic hospitals. Because of this lack of facilities, many cases who would benefit from in-patient treatment are not admitted.

439. For an in-patient child psychiatry unit to be established, certain requirements must be fulfilled:

(a) A trained child psychiatrist is needed as director. The shortage of such specialists has been the limiting factor to date. Child psychiatry requires a minimum of two years training beyond the normal specialist training in psychiatry, and staff with this training are in short supply throughout the world. New Zealand at present has only four fully trained child psychiatrists. A very potent incentive to recruitment would be a well designed and suitably staffed in-patient unit.

(b) A therapeutic team adequate in numbers and in training is essential if the best support is to be accorded to the child psychiatrist and this team must include:
  (i) Medical staff—a general psychiatrist and/or paediatrician with trainees in either field either part time or full time.
  (ii) At least one fully trained social worker.
  (iii) At least one play therapist.
  (iv) Psychologists, full time or part time, with training in both clinical and educational psychology.
  (v) Nurses with training in psychiatry and child care.

(c) Access to a school, staffed to cope with disturbed children which will usually be within the hospital and may accept day pupils on an "out-patient" treatment regime.

(d) There must be space and equipment for play and a separate building for the unit is highly desirable. These children may disturb the more ordered routine of paediatric or adult general wards.

440. There has been considerable debate as to where this rather formidable list of requirements can best be met. The possibilities are: as a separate unit; or within a psychiatric hospital, a psychopaedic hospital, or the paediatric section of a general hospital. Of these the balance of overseas experience now favours child psychiatry units alongside paediatric wards in a general hospital. Ancillary services are readily available, as are personnel trained in child care and the atmosphere has generally been found more favourable. The general hospital setting also gives the greatest possible opportunity for teaching of other medical and paramedical groups. Planning in terms of these concepts could well envisage a 25-bed unit at Auckland Hospital, with units of 12–15 beds at Wellington, Christchurch and Dunedin.

In-patient Child Psychiatry—Long-stay Provisions

441. There are a small but significant number of children whose needss will not be fully met in an acute unit and who may need to remain a, in-patients for many months or years. These may include autistic children some brain-damaged children and a few with severe emotional disturbance. The British Ministry report[38] suggested a further 25 beds per region for these long-term psychiatric cases. At present no such provision is made in New Zealand outside psychiatric or psychopaedic hospitals. It would seem a logical extension of acute child psychiatry units to provide long-stay annexes which would also be adjacent to paediatric departments. Here, in addition to the long-term child psychiatric cases, there could be a very valuable overlap with psychopaedic hospitals. While it is generally accepted as desirable that the present psychopaedic hospitals should not increase in size, there is great demand for psychopaedic accommodation.

One method of resolving this conflict is to provide alternative psychopaedic accommodation within general hospitals.

442. Within psychopaedic hospitals there are two groups particularly suitable for general hospital care. The first is the group with severe physical and mental handicaps who represent a heavy nursing burden. This is, however, for the most part "general" nursing and could be appropriately done by general hospital staff. The second group comprises of short-stay cases. Many of these require physical assessment involving laboratory and X-ray services and often specialist examination, for example, paediatrician or orthopaedic surgeon, and these facilities are more readily available at a general hospital.

443. Although the long-term psychiatric cases should be concentrated in annexes to the acute units where a child psychiatrist is available, the psychopaedic component mentioned above should be managed in long-term annexes attached to paediatric departments. Such a development would allow the present psychopaedic hospitals to concentrate more on their function as "training schools".

Planning Mental Health Services

444. There can be no doubt about the steadily increasing demand for psychiatric services. Whether this stems from a true increase in incidence and prevalence of psychiatric disabilities, or is the result of improved knowledge and changed attitudes, is a matter of considerable uncertainty and some professional debate. It is now a considerable time since C. P. Blacker pointed out that the descent of very large numbers of patients upon psychiatric clinics can be caused by nothing more than an alteration in point of view among general practitioners.

445. Many surveys of the overall content of general practitioners' work have been made. The proportion of the disability and sickness seen by the G.P. which is "psychiatric" may be set by some doctors as low at 10 percent, or regarded by others as at least 60 percent. The difference in the assessment is likely to be determined far more by the basic professional orientation of the G.P. than by any other factor. Those indifferent or even hostile towards psychiatric concepts will fail to see or deny the existence of a number of forms of illness which a psychiatrist would recognise. Conversely, G.P.'s with a liberal or even an enthusiastic attitude towards psychiatric concepts may regard as coming within the broad scope of mental health problems a number of forms of disability and illness which their more conservative brethren would see as a purely physical condition.

446. One survey suggests that in any case not more than one-tenth of the total of identified cases is referred to psychiatrists. The authors[39] make the following specific comment, "It has been suggested that at least one-fifth of the general population is in need of psychiatric treatment. If by treatment in this context be implied the attention of trained psychiatrists, it is apparent that such claims must be set against the economic realities". They go on to say "out-patient services in this country (U.K.) have expanded rapidly under the National Health Services but with the annual figure of new psychiatric cases now approaching the 200,000 mark, it is clear that the numbers are already more than can be adequately dealt with by the existing medical establishment".

447. No comparable survey of the demand for psychiatric services has been carried out in New Zealand. Although it cannot be accepted that U.K. findings are automatically applicable to the New Zealand scene,

they may nevertheless be accepted as giving a valid general indication of the likely prevalence of psychiatric disorder. The figures for first admissions to psychiatric hospitals in New Zealand (admittedly only a crude index of demand) have shown an increase from the average figure of 92.4 per 100,000 of population in the immediate post-war years to 152.6 in 1966. Equivalent figures are not available for admissions to general hospital psychiatric units or beds. There is available, however, information as to the psychiatric cases discharged from, or dying, in public hospitals over the years 1956–1965. Here the rate has increased from 148 per 100,000 population in 1956 to 203 per 100,000 in 1965. While this figure is an even less reliable index than that of first admission to mental hospital, since a significant proportion of discharges from general hospital units will be by way of transfer to psychiatric hospitals the increase in discharge rate is nevertheless a reflection of higher demand for psychiatric care.

448. Extension of existing services and the creation of new types of service will be necessary to provide effective mental health care in the future. Argument is likely to centre on two aspects of such provision: firstly, the desirable nature of provision within the community itself and secondly, the effect of such provision on the requirement for beds and particularly for long-stay beds in psychiatric or psychopaedic hospitals.

449. "Community care" is a phrase which has come to be something of a catchword over the last decade. In its full and proper sense it implies giving to the patient, where this is appropriate and practicable, care and treatment in his own home and in the community in which he lives. This is often represented as if it were an alternative to hospital care whereas in both planning and operation these should be seen as two facets of a health service. Far from being mutually exclusive alternatives they are essential and interlocking components of a total service. It follows naturally from this requirement that there must be unified control of these two elements if they are to interlock efficiently and if the principle of continuity of patient care is to be fully applied to benefit the greatest possible number of cases. Professional staff of all categories must participate in both the "hospital" and the "community care" services of the region in which they work.

450. New Zealand has not yet been able to develop out-patient and follow-up services of such a range as to reduce significantly the readmission rate to psychiatric hospitals. A cohort study made in 1966 showed no significant difference in readmission rates for patients followed up at out-patient clinics as compared with a group to whom this support was not available.[40] Unless the care available in the community is at least of the standard of efficacy which would otherwise be given in hospital, there is no justification for community care projects, which are in themselves relatively expensive of staff.

451. The object of the community care programme is to provide a better and more efficient service to patients—not merely to empty hospital beds. The following quotation is apposite:

> "The prospect of a continuing decline in the numbers of chronically disabled long-stay psychiatric patients is an attractive one for health administrators, faced with rising hospital cost and increasing antiquated buildings. But whether active early treatment and community care can replace long-term hospital treatment in its complications of social isolation and institutional isolation is a controversial question. On the practical level, the problem of whether or not to build further

large psychiatric institutions is only exceeded in magnitude by the difficulties involved in training and recruiting sufficient numbers of staff to adequately test the community care hypothesis".[41]

452. Great hopes have been built upon the "Community Mental Health Centre" as likely to reduce, if not entirely eliminate, the need for long-stay bed provision of any kind. A community mental health centre is staffed by the usual type of psychiatric team and has attached, or has access to, a number of psychiatric in-patient beds. The centre may provide an emergency 24-hour consulting service, if staff are available in sufficient numbers to make this possible. In some instances the service may be of the "walk-in" or "self-referral" kind. It cannot be questioned that such a unit, if it has adequate therapeutic resources in the way of out-patient and day-patient services in addition to its in-patient beds, may form the basis of a very efficient mental health service to a community. Its requirements in staff, particularly if it is providing a 24-hour emergency service, will be comparatively high and New Zealand could not hope in the immediate future to recruit sufficient staff of the appropriate calibre to set up such units outside major centres of population. General hospital psychiatric units at Auckland, Tauranga, Hastings, Wellington, Christchurch, Timaru and Dunedin already fulfil a number of the functions of a community mental health centre and could readily assume other functions when additional staff are available. Units being built by the Mental Health Division at Palmerston North Hospital, Wakari Hospital, Dunedin and Kew Hospital, Invercargill will similarly form the basis of such services in their areas.

453. Undoubtedly such units will give valuable service in meeting some of the present and the likely future mental health needs of their communities. That they will substantially reduce the demand for long-stay beds is far from certain. Recent American comment from a mental health centre that was one of the pioneers of this type of service is worth quoting:

> "In a very few years every community mental health centre which does not quickly transfer its chronic patients to back up facilities will face this serious problem, i.e. the accumulation of long-stay patients which greatly reduces the effectiveness of the unit in treating acute and recent cases".

The phrase "back-up facilities" is further defined as "a custodial centre which would remain essentially outside the main stream of the nation's research effort and be only peripherally related to training centres". As one medical author has commented "This in fact is where we came in half a century ago".[42]

454. For reasons which have been covered in the preceding paragraphs, it is only realistic in the present stage of knowledge and with the present resources of treatment to plan mental health services on the assumption that long-stay beds will continue to be required. A tentative planning figure of not more than 3.5 beds per 1,000 is suggested, to include long-stay as well as acute beds. It is important to realise that, in mental health services the setting of a bed ratio figure is likely to operate as something of a "self fulfilling prophecy" as there is always a tendency for a service to use as many beds as it has available. Further reference is made (paragraph 458) to the arguments on which the above figure of 3.5 is based.

Medical Staff Needs

455. There are some who would advocate the provision of one psychiatrist per 10,000 population as the only acceptable standard on which

to base planning for mental health services. A sharply divergent view has recently been expressed by Shepherd *et al.*[39] "Administrative and medical logic alike therefore suggest that the cardinal requirement for improvement of the mental health services in this country (i.e. U.K.) is not a large expansion and proliferation of psychiatric agencies, but rather a strengthening of the family doctor in his therapeutic role". It is worth recording that Shepherd and his medical colleagues, who are co-authors, are all psychiatrists. However, while recognising the validity of Shepherd's views, unquestionably New Zealand needs more psychiatrists than are yet available.

456. At a reasonably conservative estimate to provide for the needs of public mental health services a further 100 trained and qualified specialist psychiatrists should be available within the next ten years and this figure takes no account of the requirements of private practice or academic departments. It is necessary to bear in mind that, as already alluded to in this paper, the work of the psychiatrist will fall short of maximum efficiency unless adequate provision is made also for the training of an adequate corps of auxiliary professional workers, in particular clinical psychologists and social workers.

457. In the light of the substantial revision of the medical curriculum and the greatly increased teaching of psychiatry that has resulted, the general practitioner of the future will be much better fitted for his role in the community's mental health service. There should be appropriate arrangements for orientation and re-training on a continuing basis of general practitioners whose medical training has not taken sufficient account of the proportion of psychiatric disability which will present in their practice. Professional bodies such as the Royal College of General Practitioners can be expected to lead in such matters and should be encouraged by appropriate support, from other professional and Government resources.

The Need for Beds

458. Much controversy centres round this issue. Great interest was aroused by the predictions, made some ten years ago, of a substantial reduction in psychiatric bed needs in England and Wales by 1975. The findings on which this prediction was made have on numerous occasions been reviewed and criticised. A recent comprehensive re-assessment is published from the Department of Mental Health, Aberdeen Medical School.[43] In July 1967 a correspondent writing to the Lancet pointed out that the figures for bed occupancy in 1963 substantially exceeded the projected figures on which the hope of a run-down on bed requirements was based.[44] The most up-to-date comprehensive figures for the U.K. are contained in a Ministry of Health report for 1963.[45] These show a resident rate in hospitals for the mentally ill and the mentally subnormal, amounting in total to 4.0 per 1,000 of total population. It is worth comment that the equivalent New Zealand figure for 1963 (i.e. the average number resident in hospitals of the Mental Health Division) was 4.1 per 1,000.

459. Experience in England and Wales cannot be taken as entirely comparable with that in New Zealand, nor can figures based on English experience be necessarily a valid yardstick for planning in New Zealand. Nevertheless it is still quite frequently suggested that bed occupancy in mental health facilities is substantially higher in New Zealand than in the U.K. The figures above give no substance to this assumption. The average

number resident in hospitals of the Division of Mental Health has fallen from a rate of 4.8 per 1,000 of total population in 1942 to a rate of 3.7 per 1,000 in 1968 and this trend should continue, although probably at a diminishing rate. As a basis for planning it is suggested that the total provision for all mental health resources in a region should not exceed 3.5 beds per 1,000 of population served.

460. A recent detailed analysis of structure and dynamics of the north-east Scottish region of mental hospital population suggests that "although the size of the population as a whole is unlikely to fall to any marked extent in the next decade, major changes are taking place and will continue to take place in the internal structure of the population".[46] Trends in New Zealand mental hospital population as shown by census studies[47] support a similar expectation in this country.

461. In earlier sections of this paper it has been argued that long-stay provision can be made for a number of types of psychiatric disability other than by conventional psychiatric or psychopaedic hospital care. Knowledge of the economics of these alternatives is still sketchy. However, it is reasonable to assume that where they can be integrated with the physical and administrative resources of local Hospital Boards, they can be provided economically and there are likely to be considerable advantages in terms of future flexibility.

The Functional Organisation of a Mental Health Service

462. If it is assumed that regional responsibility of all health care will be accepted by Hospital Boards and that full integration of resources for the treatment of the physically and the mentally ill will proceed from this point, it becomes practicable to consider mental health services in terms of functional design, rather than in terms of architectural provision. The functional approach has much to commend it. It seems likely that it will be no less efficient economically than the traditional type of service. We are in a period of very rapid change and development in psychiatry and in concepts of mental health care. As some of the comment and quotations earlier in this paper must clearly show, firm points of reference for planning are extremely difficult to locate and define. It is of overriding importance that we should avoid imposing a brake on the development of services by undue rigidity in planning or by over-commitment to any one currently favoured concept.

463. Effective operational planning of mental health services must take account of the particular demographic problems of the region concerned, as well as the resources available and likely to be available. In particular, it must always be borne in mind that the psychiatrist who is to be responsible for a regional service will have his own very definite professional notions as to the most appropriate design of the service and the most effective way to utilise its various components. He must have reasonable freedom of professional choice in these matters. There is no ideal form of mental health service as yet evolved and the design of each service must bear something of the imprint of the training and philosophy of the psychiatrist responsible for its direction. Such diversity is to be encouraged.

464. Services in an area can be built up as a functional unit, dependent upon a number of largely or entirely independent types of care, which may occasionally be alternatives but most frequently will be complementary. The individual clinical needs of patients, the social considerations operating in the community where the patient lives, and the relationship

with other existing or planned types of health care must all influence both the design of service and the actual treatment programme for the individual case. Thus will be provided a "complex of interlocking and interdependent types of care".[42]

465. There is little likelihood of being able to meet in the immediate future all the mental health service needs of any one area, let alone of the whole country. If diversity and experiment are to be encouraged (and within the limit of available resources, it is desirable that this be so), there must be no uncertainty about where responsibility for service lies. A minimum of overlapping responsibilities may have to remain. A great diversity of services and facilities go to make up the functional basis of a comprehensive mental health service. If these components are seen as capable of grouping into mutually exclusive alternatives, the consequences are likely to be wasteful in an area where, already, resources are taxed to the limit. If on the other hand, the various components are seen as complementary, both the efficacy of individual treatment and the efficacy of the service as a whole will be increased.

CHAPTER V: HOSPITAL DISTRICT POLICIES

466. In offering a forecast of the future shape of hospital districts there appears no good reason to depart materially from the recommendations of the Barrowclough Report on Hospital Reform,[5] except in respect of that Committee's proposal to introduce a tier of Regional Authorities into the present structure. The need for this is considered at least premature, and indeed in view of emerging trends in area medical services both here and overseas, it is doubtful if there will be any future place for such an elaboration of the existing structure. Repair of the deficiencies noted by that Committee has been pursued, with it may be claimed, considerable effect, firstly by the introduction of the Hospital Act 1957 and its subsequent amendments of 1966, 1967 and 1968—secondly by a slow but steady build-up of the strength of the Department's Division of Hospitals, thus leading to more effective patterns of regular and direct contact with individual Boards, and thirdly, by the recent establishment of the system of defined annual maintenance allocations now in its third year of operation. This system has been tried and found acceptable through the joint efforts of the Department and Hospital Boards, and though admittedly still in process of elaboration it represents a considerable advance towards an equitable system of financial control, free of unnecessary rigidity in application.

467. Regarding the territorial and administrative future of Hospital Board districts there can be no doubt that some further revision of Hospital Board boundaries is desirable. It is clearly inevitable and should be furthered on a continuing basis until a more sensible pattern and size of Hospital Boards has been reached.

The Public Expenditure Committee of Parliament in its reports of 1963 and 1964 affirmed the desirability of this aim and recommended "that the powers of the Hospitals Act 1957 be used to investigate and implement proposals for amalgamation of boards where appropriate."[48] [49]

468. The following forecasts of possible development in each area are put forward as suggestions only, as a starting point for further negotiations and to stimulate active forward planning. They are presented in the light of present-day conditions and recognisable current trends, and have evolved from widely representative discussions over the past five years or so, within the service.

469. Each Hospital Board is dealt with separately, and in the geographic sequence followed in Table I of the Supplement to the Department's Annual Report, with a brief survey of the present state and content of each board's service, and possible future role. The survey covers:

(i) Provision of national services where applicable, and their location.

(ii) The function and provision of services within the present major and medium-sized hospitals becoming known as "base" and "supporting" hospitals.

(iii) The place and future of the small hospital units.

It is within this last group that decisions upon future developments and their most effective usage will be most significant.

470. In this latter context also, in the light of an increasingly firming obstetric opinion, future policies upon the development of obstetric hospitals or maternity annexes could have an effect on the maternity hospital pattern as we know it and on the present geographic distribution particularly of the smaller of these institutions.

471. Full details of the institutions controlled by each Hospital Board as at 31 March 1969, are included as Appendix 2.

NORTHLAND HOSPITAL DISTRICT

(Population served in 1969—94,280)

472. The Northland Hospital District was formed in 1950 by the amalgamation of the six Hospital Boards of Whangaroa, Northern Wairoa, Bay of Islands, Mongonui, Hokianga and Whangarei.

473. The base hospital situated at Whangarei (319 beds) provides a full service to a large and fairly sparsely populated area, supported by secondary hospitals at Kaitaia (114 beds) and Dargaville (78 beds). Smaller units giving a limited basic service are at Kawakawa (79 beds), Kaeo (28 beds) and Rawene (51 beds).

In addition there are maternity units at Kaikohe (21 beds) and Paparoa (8 beds) and Old People's Homes at Whangarei (40 female and 8 male beds), Kaikohe (8 beds) and Te Kopuru (25 beds).

Forward Building Programme

474. The major works projected in the Board's area, and expected to come to commission within the next three years or so are:

(i) Theatre and kitchen replacement at Kaitaia, to be followed by conversion of existing buildings to accommodate out-patient and casualty departments, physiotherapy, C.S.S.D. and pharmacy. This work is now well under way, and will complete the present phase of upgrading and enlargement of this hospital.

(ii) Phase II Development of the Whangarei Base Hospital to provide a 60-bed maternity unit, two general wards, additions to the X-ray department, O.T. department, medical administration, cafeteria and staff changing rooms, and conversion of the present maternity annexe to a psychiatric ward. There is provision also for a new kitchen to replace the existing unsatisfactory unit.

In addition, but without as yet any specific timing, a further phase is programmed to comprise a ward and administration block to replace obsolescent existing accommodation.

(iii) Maternity Ward—Dargaville: A 14-bed annexe is planned to enable the transfer of the present unit from the Te Kopuru site, and the closure of remaining geriatric accommodation there.

475. On completion of these projects the Northland Hospital area services will comprise:

Base Hospital	—Whangarei	
Sub-base Hospital	—Kaitaia	
Satellite Hospital	—Dargaville, Kawakawa, Kaeo, Rawene	Retained without major alternations; possibly increasing their functions in respect of geriatric and convalescent care.
Maternity Hospitals	—Kaikohe, Paparoa	To remain meantime in their present form.
Old People's Homes	—Whangarei	(Male and Female) plus one private home with 32 beds.
	Dargaville	(Replacing Te Kopuru).
	Kaikohe	(The present unit located on the Maternity Hospital Site).
	Kaitaia	(O.P.H. maintained by the Sweitzer Trust).
Private Hospital	—"St Mary's"	Onerahi, Whangarei—20 Medical and Surgical beds).

AUCKLAND HOSPITAL BOARD DISTRICT

(Population served in 1969—648,230)

476. Although geographically this District covers a relatively small area of the North Island, the population served by the Hospital Board is over 32 percent of the total population of the North Island and just under a quarter of the population of the whole of New Zealand. It is the most rapidly growing area with an estimated average annual percentage increase of population of 3.3 percent until 1976, and 3.2 percent forecast to 1986, when the estimated population will be 1,160,690.

477. This rapid increase in population, coupled with the difficult financial situation during the past two or three years and a consequent difficulty in raising loan funds for capital development, has accentuated the shortage of acute beds in the area, despite major achievements by the Board in increasing the turnover of patients and establishing a high bed occupancy percentage in all the Board's general hospitals. Days' stay per in-patients treated, for instance, dropped from an average of 14.4 in 1965–66 to 13.8 in 1967–68.

478. At present the Board is responsible for the administration of three major general hospitals, Auckland Hospital (536 general beds), Green Lane Hospital (478 general beds) and Middlemore Hospital (635 general beds plus 68 maternity beds). It also has under its control the National Women's Hospital (371 beds for obstetric and gynaecology) and Cornwall Park Geriatric Hospital (388 beds).

In addition the following maternity hospitals are operated:

(i)	North Shore Hospital	— 60 beds
(ii)	Pukekohe Hospital	— 22 beds
(iii)	Papakura Hospital	— 17 beds
(iv)	Waitakere Hospital	— 65 beds (45 commissioned)
(v)	Devonport Hospital	— 10 beds
(vi)	Eastern Bays Hospital	— 11 beds
(vii)	Warkworth Hospital	— 12 beds
(viii)	Howick Hospital	— 8 beds
(ix)	St Helens Obstetric Hospital	— 93 beds

479. The new St Helens Hospital was built by the Department and was transferred to the Board's administration in 1968.

480. Other institutions under Board control are the Civilian Rehabilitation Centre at Otara (26 beds), the Wilson Home for Crippled Children (60 beds) and the Birkenhead Convalescent Hostel (15 beds).

Hospitals in the Board's district at present administered by the Mental Health Division of the Department of Health but destined to pass in due course to Hospital Board control are Oakley (1,005 beds), Kingseat (Papakura 936 beds), Raventhorpe (Bombay 343 beds), Mangere hospital and training school (376 beds).

The New Zealand School of Occupational Therapy is situated on the Oakley Hospital site and administered by the Mental Health Division and has a total annual intake to its three year course of 48 students.

The Royal New Zealand Navy hospital located at Devonport contains 51 beds and caters for service personnel and dependents.

481. During the past ten years or so, an extensive building development programme has been carried out by the Board at its three major institutions. The main items in this programme which have either been completed or are in the course of planning or construction are:

(i) The completion of the new *National Women's Hospital* on the Green Lane Hospital site opened in 1964, and the use of its previous accommodation at Cornwall Park to replace that formerly occupied as the Cornwall Geriatric Hospital. (These latter buildings have since been either demolished or removed elsewhere, and their site restored to park condition.)

(ii) The completion of Stage I of the rebuilding of *Green Lane Hospital*, consisting of casualty and out-patient department and administrative offices, and the construction of Stage 2—the new Clinical Services and Ward Block—which is now well advanced.

(iii) The construction of the new Acute Block at *Auckland Hospital*, the commissioning of Stage 1 of which is expected to begin in November 1969, to be followed by Stages 2 and 3 to a total of 313 beds.

(iv) The completion at *Auckland Hospital* of a number of other projects including a new boilerhouse, a new workshop block, extensions to the radioisotope department, a new renal dialysis unit, a radiotherapy building to house a new cobalt 60 unit and at the Princess Mary Block, a new head injuries unit, and extensions and alterations to provide improved E.C.G. and E.M.G. services, an enlarged X-ray department and additional ward accommodation for the paediatric department.

(v) The completion at *Middlemore Hospital* in 1961 of a 60-bed maternity block, and in 1964 of a 306-bed ward block, with operating theatres, etc. Also at Middlemore Hospital, other projects completed have been a household staff block and a new nurses' home, extensions to kitchen and boilerhouse, extensions to the plastic surgery unit, and the transfer from Cornwall Hospital and erection at Middlemore of four temporary ward units.

(vi) The completion of a new blood transfusion centre in the close vicinity of Auckland Hospital.

Forward Building Programme

482. For a number of years the Board has been carryout out its building development on a carefully planned forward programme, with due consideration to estimated population growth in the different areas of its

district, the expected bed needs for acute and long-stay patients, and other factors such as the establishment of national specialties, the opening of the Auckland Medical School, and the need to move geriatric accommodation as soon as feasible from the Cornwall Park site.

483. With these ends in view, plans had been made, and had reached the approval of working drawing stage, for two new general hospitals, one at North Shore and the other at Henderson near the existing new Waitakere obstetric hospital. Both were planned to be built in three stages, the first to comprise 140–150 geriatric beds and necessary services and staff accommodation, the second to provide 300 acute beds plus clinical services, and the third a further 300 acute beds. Unfortunately, the financial situation, and the heavy commitments already involving the Board, has necessitated a delay of these projects, and a re-assessment of programme to ensure the provision of the greatest number of acute beds as quickly and economically as possible. As a result it has been decided to proceed with the completion of Stages 2 and 3 of the Auckland Acute Block following the completion of Stage 1, thus providing an additional 378 beds by 1972. Auckland Hospital will then be a fully functioning 1,222-bed general hospital. In addition it is proposed to proceed with Stage 3 of Green Lane Hospital as soon as Stage 2 is completed. The North Shore General Hospital has started building in 1969–70.

484. Other projects which are needed and will be fitted into the Board's programme according to priorities and financial resources, are:

Possible addition to Stage 3 of Green Lane Hospital development to the extent of 100–120 beds.

Additions and extensions at Middlemore Hospital.

New general hospitals in the Board's south-eastern regions, and at Waitakere.

A new headquarters for the Extra-Mural "Hospital".

A new physiotherapy department at Auckland Hospital and a combined School of Physiotherapy/Occupational Therapy.

Maternity facilities in the Board's south-eastern area and at other sites in the district at an early date.

485. Although no recommendation was made in the Barrowclough Report for any change in the Auckland Hospital District, the rapid increase in population which has occurred since 1953, and the establishment of the Auckland Medical School with the proposed use of the Board's institutions as teaching hospitals, have altered the picture considerably. The greatest growth and need for hospital facilities at present, is in the south-eastern area where the Board already plans to establish a general hospital. A site for this is being negotiated.

486. The Auckland Hospital District will continue to be the biggest in the country, population-wise, and the most rapidly growing, and its commitments to the provision of national specialist facilities are likely to continue and increase.

487. There is a total of 53 private hospitals in the area providing 342 medical and surgical beds in 8 hospitals, 777 medical beds in 40 institutions, 96 maternity beds in 6 hospitals and 60 children's beds in 1 hospital. In addition there are 25 Old People's Homes providing a total of 1,315 beds, operated by religious and welfare organisations and a further 78 privately owned homes providing 1,114 beds.

WAIKATO HOSPITAL DISTRICT

(Population served in 1969—279,650)

488. The population is expected to rise by 1981 to 410,050, i.e. an average annual percentage increase of 2.4 percent, which places it high among the fastest growing areas of the Dominion. It is territorially the largest hospital district in the North Island, embracing large areas of sparsely populated rural lands, and with the highest proportion and actual number of substantial population centres. Apart from the cities of Hamilton and Rotorua, there are the townships of Huntly, Ngaruawahia, Raglan, Te Aroha, Morrinsville, Matamata, Cambridge, Te Awamutu, Otorohanga, Te Kuiti, Putaruru, Tokoroa, Taupo and the newly enlarging Turangi settlement supporting the major power development scheme nearby. By virtue of size and of location, all of these communities have, and most justify, some form of hospital facilities.

489. The base hospital at Hamilton, the Waikato Hospital, has 732 general and 57 obstetric beds. The secondary hospitals for the district are at Rotorua (262 general and 64 maternity beds) and on a lesser scale at Te Kuiti (67 general and 19 maternity beds). The latter has recently been upgraded by the provision of a new block of maternity beds, including a floor of nurses' accommodation which will later become a general ward. A further unit of 60 general beds was recently established at Tokoroa.

Mental health facilities in the Waikato Board's district are provided by Tokanui Hospital (810 beds) at Te Awamutu.

Private hospital beds are provided at Hamilton 98 beds, Rotorua 24 beds, Te Awamutu 19 beds and Matamata 9 beds.

The Board also administers maternity hospitals at Te Awamutu (27 beds), Cambridge (20), Taupo (20), Te Aroha (20), Matamata (18), Huntly (15), Tokoroa (14, being enlarged to 20), Morrinsville (14), Putaruru (13), Otorohanga (12), Mangakino (7), Turangi (7) and Raglan (4). A small unit at Kawhia has been temporarily closed since March 1967. Old People's Homes are situated at Rotorua (Gardenholm—for 56 men), and Hamilton (Fairholm—for 30 women) and a convalescent hospital at Rotorua (Riverholm) accommodates 9 patients.

490. Other building works recently completed, or at present under construction in the Board's district include a multi-storey ward block and boilerhouse/laundry at Hamilton, where a new clinical services complex is also well advanced in construction. At Rotorua a new ward and administration building has just been commissioned and a 40 bed obstetric unit is soon to be enlarged to 65 beds plus additional neonatal and theatre facilities.

491. The Board is bearing its proportional share of the rapid and continuing increase of population pressure and patient demand now characteristic of the northern half of the North Island. Over the past few years it has steadily enlarged and diversified its available services, and except for those facilities still restricted as national specialties, is virtually self-sufficient. Demand for further facilities, and in particular for patient accommodation, continues and will continue to grow, the special fields of concern being:

(a) General bed accommodation to cope with population growth.

(b) Obstetric services as a central facility, and

(c) Geriatric beds.

Forward Building Programme

492. The larger items in the Board's early forward development programme are:

(i) The East-West Ward Block at Waikato Hospital to provide 439 general beds.
(ii) New store block at Rotorua.
(iii) Taupo General Hospital—25 general and geriatric beds.
(iv) Morrinsville Geriatric Hospital—40 beds.
Tenders for all four projects have been let during the past year.
(v Te Kuiti Geriatric Ward—16 beds—calling of tenders approved.
(vi) Te Awamutu Geriatric Hospital: 22 beds—calling of tenders approved.

493. In addition, between 1970–71 and 1973–74 other items in the Board's programme are:

(i) Additions to the Campbell Johnstone Obstetric Unit to provide a central obstetric unit for the whole district of some 100–120 beds.
(ii) New operating theatres at Waikato Hospital.
(iii) Upgrading and additions to the laundry at Waikato Hospital.
(iv) An additional storey to the Edward Guy Obstetric Unit, Rotorua Hospital.
(v) A new 140 bed Ward Block and a Clinical Services Block at Rotorua Hospital.
(vi) A replacement of Gardenholm Old People's Home, Rotorua.
(vii) Clinic/administration block at Te Kuiti Hospital.

494. The size and geographical spread, and the rapid population growth of this area are beginning to pose a problem of effective management within its present boundaries and administrative framework, which the Barrowclough Report recommendations do nothing to resolve. Indeed, these factors could also substantially alter the recommendations made in that Report for much of the contiguous area (Bay of Plenty, Opotiki, Taumarunui, and possibly Tauranga Districts).

There is clearly a case for a critical reappraisal of this situation. A solution could well lie in a reorganisation of the areas at present comprising the Waikato Board and neighbouring districts. From this might emerge an effective realignment of boundaries to provide new viable hospital districts.

495. Independent, however, of any speculations on the future administration of the area, the layout of the present Waikato Board's institutions within such a wide spread of territory is such that no material change is foreseen in the function of the existing units. In fact all services at present available or approved to become available in the near future, are fairly assured of full and continuing usage.

496. In the field of obstetrics, however, there is evident already a growing trend towards concentration of all potentially abnormal cases in a central unit where full facilities of staffing and service are available. The provision of full-consultant obstetric services at Hamilton and Rotorua must affect the size and sophistication of the existing and any future units in the Board's area.

497. The Waikato Hospital Board District includes also eight private hospitals providing a total of 110 medical and surgical beds and 40 medical beds. There are seven Old People's Homes run by religious and welfare organisations with 147 beds, and a further three privately operated homes providing 42 beds.

THAMES HOSPITAL DISTRICT

(Population served in 1969—28,450)

498. The base hospital situated at Thames has 184 general and 20 maternity beds. At Waihi, 32 miles from Thames is a satellite hospital with 33 general and 12 maternity beds. A maternity unit (11 beds) is situated at Paeroa, 20 miles south of Thames. Northwards on the Coromandel Peninsula are the Coromandel Hospital, 36 miles distant on the western coast, and Whitianga (Mercury Bay) Hospital some 50 miles away on the eastern coast. Both are essentially small general-practitioner-serviced maternity units plus "general" facilities providing only minimal cottage-hospital care or resuscitative attention prior to transfer of patients to the base hospital, Coromandel has a total of 23 beds, and Whitianga 6. In addition the Board maintains the Tararu Home, a 50 bed Old People's Home six miles northwards from Thames on the Hauraki Gulk coast, recently extensively remodelled and rebuilt and still in the process of upgrading. There are no private hospitals in the district.

Forward Building Programme

499. (i) Work has just been completed on the conversion of some older accommodation to provide new casualty and X-ray departments.

(ii) *Tararu O.P.H.*
Work is at present in hand to replace the remaining older sections of the building.

(iii) *Coromandel Hospital*
Plans for extensive modernisation of this hospital have been deferred and a modified scheme is being developed.

500. For some time past, largely by virtue of its available reserve capacity in beds and services, Thames hospital has been attracting patients, chiefly for surgery, from the contiguous southern area of the Auckland Hospital Board's district, and it is expected that this trend will continue and could possibly expand, though in the latter event surgical staffing must present a problem.

501. Regarding internal development of the Board's services, continuance of Paeroa maternity home and of the maternity section at Waihi, and a trend to geriatric and convalescent/long stay nursing at Waihi is likely. In view of the distances and travel conditions obtaining it is likely that both the maternity services and emergency hospital provisions at Coromandel and Whitianga will have to continue for some time, although given swifter access to Thames it would be of advantage to centre all these facilities at the base hospital. The further prospect for the whole district would (again in terms of the Barrowclough Report) still seem best achieved by integration into the Auckland Hospital Board, at which time the present base hospital (Thames) would naturally become a major satellite of any future general hospital in the Auckland Board's Southern area.

TAURANGA HOSPITAL DISTRICT

(Population served in 1969—50,840)

502. The area covered by the Tauranga Hospital Board features rapid population growth and industrial development, especially in the timber industry and expanding port activities. Forecasts of population growth

for the Bay of Plenty as a whole, show an estimated average annual increase of 2.9 percent, second only to the Auckland area.

503. The base hospital at Tauranga is at an interim stage in its development and has at present 281 general beds and 45 maternity beds. The Board's only other institutional responsibilities are the 11 bed Old People's Home at Katikati, formerly a small maternity hospital, and a 15 bed maternity hospital at Te Puke, but future provision of maternity facilities has been envisaged at Mount Maunganui and possibly at Otumoetai in relief of anticipated pressures on the central unit at Tauranga Hospital.

There is one private hospital in the district with 23 medical and surgical beds, and one Old People's Home of 13 beds is operated by a religious organisation.

Forward Building Programme

504. (i) Work has already started on a new ward block to contain 128 general beds, plus admission and intensive care units.
(ii) Sketch plans for a new Clinical Services Block are in the course of preparation.
(iii) Working drawings for new Board offices are also in preparation.
(iv) Alterations to existing buildings are being carried out to improve X-ray facilities, and nurses' tutorial accommodation.

505. When the above works have been completed, there are plans for another ward block containing an obstetric unit and children's accommodation, and thereafter for two further ward blocks, replacing existing obsolescent accommodation, bringing the ultimate total of beds to 600.

506. Plans to rebuild the Te Puke Maternity Hospital have been postponed; instead alterations and improvements are planned to raise its accommodation to a reasonable modern standard.

507. The future alignment of the whole of the Bay of Plenty region is uncertain (see paragraph 494 on Waikato) but it is reasonable to envisage it as part of a reconstituted "mid-eastern" hospital district. Its contacts for other than locally available services will continue to be essentially with Hamilton and Auckland.

BAY OF PLENTY HOSPITAL DISTRICT

(Population served in 1969—33,250)

508. The base hospital at Whakatane has 143 general and 28 maternity beds. The only other institutions under Board control are maternity units at Kawerau and Murupara both of 8 beds, the former being a newly built hospital opened in October 1967. There are no private hospitals or Old People's Homes in the district.

509. The base hospital at Whakatane, as with Tauranga Hospital, is at an interim stage of its development. Phase 1 has been completed, and plans have been prepared for the Phase 2 development as detailed below.

Forward Building Programme

510. (i) Phase 2 of the development of Whakatane Hospital has reached the tender stage. The new block will contain clinical services, X-ray and laboratory facilities, casualty and outpatient departments, general and medical administrative accommodation, operating theatres, C.S.S.D., and two wards, one of 30 beds and one of 24 beds plus an intensive care unit.

When this is completed there will be 204 general beds available, and this should conclude major development for the foreseeable future.

(ii) The present temporary maternity unit at Murupara is expected to be replaced by a permanent structure within the next two or three years, on the general design of the unit already at Kawerau.

511. As already stated in paragraph 507 above, in connection with Tauranga Hospital Board, the future pattern of the whole of this area is still uncertain though it seems likely that this Board must form part of a reconstituted mid-eastern hospital district.

OPOTIKI HOSPITAL DISTRICT

(Population served in 1969—6,960)

512. Situated some 40 miles south-east of Whakatane in the Bay of Plenty, the Board's base and only hospital in Opotiki township has 54 general-practitioner hospital not under any pressing demand (average daily bed occupancy 60 percent general and 47.5 percent maternity). No extension is contemplated.
general-practitioner hospital not under any pressing demand (60 percent A.O.B. general and 47.5 percent maternity). No extension is contemplated.

There are no private hospitals or Old People's Homes in the district.

513. The 1953 Barrowclough Report recommended inclusion of this district in a new Hospital Board also involving the existing Waiapu, Wairoa and Cook Board districts, with Cook Hospital as the base unit. Subsequent developments in transport facilities and population trends, however, suggest that a more probable future linkage will be within whatever reconstitution of districts may emerge in the Bay of Plenty area. (See paragraphs 494, 507 and 511 above.)

TAUMARUNUI HOSPITAL DISTRICT

(Population served in 1969—15,270)

514. This Board is responsible for an area of sparse settlement, modestly sized communities and essentially rural development, but caters also for the substantial accident calls from the Tongariro National Park snowfields area and of a still extensive timber industry.

515. The base and only hospital at Taumarunui has 112 general beds and 27 maternity beds and there is also in Taumarunui, "Avonlea", a 12 bed Old People's Home. An emergency (first-aid) and ambulance facility is supported at Chateau Tongariro by the National Parks Board.

516. The Board is just completing a building redevelopment programme which commenced in 1950.

Forward Building Programme

517. Three items of the current programme have still to be completed:

(i) Conversion of old male ward to out-patient and casualty department.

(ii) New operating theatre suite.

(iii) Improvements to water supply.

518. With the completion of these three projects, the major hospital development work at Taumarunui Hospital will have been met for the present. There is provision in the block development plan for further

ward extensions should these become necessary and Avonlea Old People's Home is an old building which may later require to be replaced.

519. The future place of this district is as yet not at all defined. Meantime, however, the considerable developments at Turangi (power scheme), Taupo as a tourist centre and on the western shores of Lake Taupo, coupled with the steady and marked improvement in roading provision throughout the area, suggest that realignment or regrouping of hospital districts and facilities in the present Waikato Board district and its surrounding areas may soon be a necessary and worthwhile exercise.

520. This of course would necessarily involve consideration not only of Taumarunui, but also of the present Tauranga, Bay of Plenty and Opotiki Boards and of what most efficient realignment of these and the present Waikato Board can be achieved. (See paragraphs 494, 507, 511 and 513 above.)

WAIAPU HOSPITAL DISTRICT

(Population served in 1969—5,350)

521. This Board is based on Te Puia Hospital, at Te Puia Springs some 65 miles north of Gisborne, and is itself the product of an earlier amalgamation of Waiapu and Matakaoa Hospital Boards. Considerably upgraded, though not materially enlarged, over the past ten years or so, the hospital has 30 general and 14 maternity beds. It is staffed by the two locally based medical practitioners, with consultant and other assistance provided mainly from Gisborne. No further development works are at present envisaged, except for an important proposal to establish a rural dental service to meet the needs of the East Cape region, and some improvement of outpatient facilities.

In line with the 1953 Committee Report,[5] this area must obviously be linked to the Cook Hospital district, upon which it already substantially depends.

COOK HOSPITAL DISTRICT

(Population served in 1969—39,000)

522. The base hospital for this district, Cook Hospital at Gisborne, serves a rural and coastal area of the east coast which has been until recent years lacking in easy transport links with its neighbours but which has lately, by virtue of modern air services and very marked upgrading of roading both to north and south, gained much improved access in both directions.

523. The population served, other than in Gisborne city, is essentially rural in interests, and is sparsely distributed over a large area of country. Population growth in terms of real gain has therefore been slow, and continues to be so as evidenced by the following figures:

	1961 Census	1966 Census	
Waikohu County ..	.. 3,518	3,302	— 216
Cook County ..	.. 10,120	10,076	— 44
Gisborne City ..	.. 22,494	24,939	+2,739

The estimated population in the two counties is expected to show a further decrease during the next twenty years, but that of Gisborne city is estimated to increase during the same period at an average annual rate of between 1.0 and 1.4 percent.

524. The facilities offered in Gisborne, however, have been considerably improved over the past fifteen years or so. A clinic and administrative building, newly occupied towards the beginning of this period, has been followed by the commissioning of a modern Nurses' Home, a central cafeteria service, an isolation unit, temporary accommodation to relieve congestion in the pathology department, and other works upgrading the steam services and workshop facilities. In addition, by virtue of bequest funds augmented by Government grant, an 18 bed convalescent hospital has been provided on donated land and has been occupied for the past eight years. With regard to this unit, some critical comment is pertinent. While the concept of such convalescent accommodation has proved useful, or at least has been so reported, in some countries, and might also serve a purpose in some circumstances in New Zealand, it is open to serious doubt if such an institution is a necessary adjunct to the services of a medium sized hospital under our New Zealand conditions of hospital/general practitioner/domiciliary service. Of possible, though unproven, value in city areas of serious bed shortage, such a facility in its present usage may be more of a burden to its administrators than a real advantage to patients.

525. The facilities at present administered by the Board are Cook Hospital (250 general and 22 maternity beds), Lister Maternity Hospital (10 beds), the Morris Convalescent Hospital (18 beds), and the Memorial Old People's Home (63 beds). There are two private hospitals in Gisborne providing 25 medical and surgical beds and 9 maternity beds respectively. There are also two Old People's Homes run by religious bodies, containing 43 beds.

526. Irregularities and weight-bearing inadequacies of the present hospital site, together with the need to plan and provide for forward development, resulted in an agreed decision some $2\frac{1}{2}$ years ago, between the Board and the Department, to commence the staged rebuilding of the base hospital on a new site about a mile distant from the present hospital, on a flat farmland site owned by the Board and considered suitable to carry foreseeable development to a 600 bed total capacity. This site already carried the Memorial Home mentioned above.

527. Since agreement was reached that this re-location should proceed, the progressive developments on the new site have been:

(i) An additional 27-bed unit to the Memorial Home allowing much needed modernisation of vacated space in the service areas of the original unit.

(ii) A new boilerhouse and laundry, and

(iii) A new obstetric hospital, opened in March 1969 containing 60 beds, one 20 bed floor of which will be used at first as nursing staff accommodation. Both of the existing out dated maternity units are now replaced by it.

528. Further development, as indicated above, is envisaged to enable the growth of the new base hospital by such stages and at such speed as population growth and service demand may define. The earlier stages of planning of the initial patient accommodation and service element to provide up to 300 beds and clinical facilities, have already commenced. The transition between the old and the new sites will necessarily be a lengthy operation and it is accepted that the present general hospital will continue to serve on a gradually lessening occupancy basis for a considerable time to come.

529. It is not considered that the amalgamation of Waiapu Hospital District with the Cook area, recommended in the Barrowclough Report and supported as logical by the Department, will involve any material variation at Cook Hospital, as far as the forward planning of the Board is concerned.

WAIROA HOSPITAL DISTRICT

(Population served in 1969—11,500)

530. Wairoa hospital (96 general and 22 maternity beds, plus 13 Old People's Home beds in former nurses' home accommodation) serves a wide and sparsely populated district roughly equidistant from Gisborne and Napier. Formerly considerably isolated from outside contact by difficult roading, improvement of communications has accentuated both the social and the medical link with Hawke's Bay.

531. Accordingly, despite the recommendation of the Barrowclough Committee (see paragraph 513) for a combination of Wairoa with Cook, Waiapu and Opotiki Boards, it would appear that the most likely linkage of this small Board would be with Hawke's Bay Hospital District.

Forward Building Programme

532. During the past ten years a new ward and theatre block and a new Nurses' Home have been completed and plans are at the working drawing stage for a new ward and administration block. A new kitchen-dining room is under construction.

HAWKE'S BAY HOSPITAL DISTRICT

(Population served in 1969—92,130)

533. This district embraces two centres, Napier (Base) and Hastings, of fairly comparable size and speed of population growth, situated within some 12 miles of each other on the coastal fringe of the district. The present service for the area is as a result somewhat indeterminately divided between the two centres and their hospitals, with a growing trend to the most effective allocation of facilities between the two hospitals.

534. The base hospital of the Board is at Napier (272 beds). Present maternity provision at Napier is 1½ miles away at McHardy Hospital with 28 beds, due in early development to be replaced in a 44 bed block in the main hospital complex. Hastings Hospital has 247 general and 46 maternity beds.

535. The Board also provides Old People's Home accommodation in three units in the Napier area, and recently established a 16 bed psychiatric ward at Hastings.

Five private hospitals in the district provide 10 medical and 12 maternity beds at Napier, 24 medical and surgical and 10 medical beds at Hastings, and 30 medical beds at Havelock North. In addition, seven Old People's Homes provide 250 beds: 137 at Hastings, 71 at Napier, and 42 at Havelock North, and three private Old People's Homes totalling 26 beds.

536. Major works in construction or projected in the Board's area, and intended to come to commission within approximately the next four years are:

Napier:

1. Ward and Clinical Services (including Theatre) Block of 150 beds, X-ray, Laboratories, Out-patients and Emergency and Accident Department now building.

2. Consequent on 1 above, conversion of the present Chest Block to an Obstetric Unit, replacing the McHardy Hospital.

Hastings:

3. A new Obstetric Unit—essentially a replacement of existing outdated premises.

537. In addition to the substantial developments above there is under preliminary consideration the establishment in close relation to, and serviced in common with the Hastings Hospital of a 250–300 bed psychiatric hospital, in line with the declared policy of Government to integrate general and psychiatric care throughout the hospital system.

538. Future possible developments for this area stem from the Barrowclough Committee's recommendations and envisage inclusion of the present Waipawa Hospital District into a new Hawke's Bay Hospital District (see paragraph 542 below). Further potential enlargement of the area would depend upon local trends and the most suitable conjunctions of hospital responsibilities through the northern East Coast area, i.e. consideration of the future alignment of the Wairoa district (see paragraph 531).

WAIPAWA HOSPITAL DISTRICT

(Population served in 1969—13,086)

539. This district is essentially pastoral and agricultural, extending from the central Hawke's Bay plain to the coast.

540. Local and inter-district developments over some years past have resulted in a steadily increasing dependence by this district upon the services of the Hawke's Bay Board, and at present, apart from the facilities expectable of a "satellite" hospital, its major services are supplied by consultants on a visiting basis, and where necessary by referral or transfer of patients, mostly to Hastings or Napier.

541. Institutions under the Board's control are:

(i) *Waipukurau Hospital* with 89 general beds and 16 "Home" beds. There are no major building projects envisaged for this hospital. During the past ten years the following works have been carried out: Upgrading of engineering services; additions to the administration block; completion of new boilerhouse and laundry; theatre improvements; and a ward block providing 62 general beds and enabling demolition of very substandard patient accommodation.

(ii) *Raymond Maternity Annexe* (12 beds) is closely adjacent to the main hospital.

(iii) *Pukeora Home for the Disabled* (48 beds). This institution was opened in 1957 as a pilot scheme for the accommodation of physically disabled persons of both sexes who because of their disabilities could not lead an independent life. The home was formerly a sanitorium and the buildings, some erected in 1919, were designed for that purpose. The scheme has proved its usefulness and rebuilding is now in progress. The first stage which consisted of Occupational Therapy, Education and Sheltered Employment Departments have been completed and work has commenced on the building of new kitchen/dining room and administration blocks together with three 20 bed residential blocks. At a later stage a fourth 20 bed residential block can be built and it is

considered that the 80 beds then provided should be the ultimate capacity of the Home.

The people of Waipukurau and the surrounding districts have given their full support to this pioneer effort and have assisted by providing outings and amenities for the residents of the Home, and the Pukeora Auxiliary Guild has raised funds for the construction of a swimming pool that is to be built in conjunction with the present building phase.

(iv) *Rathbone Maternity Hospital, Waipawa.* This small hospital has been closed since July 1967 on the recommendation of the Hospitals' Advisory Council.

There is one private hospital at Waipukurau (14 medical and surgical beds).

542. It was recommended by the Barrowclough Committee[5] that this district be taken into the Hawke's Bay Board. The factors of accessibility, facility of transport, availability of consultant services, etc., which underlay that recommendation in 1953 apply with even greater force today.

DANNEVIRKE HOSPITAL DISTRICT

(Population served in 1969—13,120)

543. This district adjoins the territory of the Palmerston North Hospital Board and the two hospitals are separated by approximately 33 miles, which, however, include the Manawatu Gorge. The Board provides hospital services for an essentially farming population. It is provided with hospital beds and clinical facilities, sufficient to meet all its requirements.

544. The institutions under the Board's control are the hospital at Dannevirke (121 general and 17 maternity beds) and the Woodville Maternity Home (4 beds; average daily occupancy 1.4).

There is no private hospital in the district but one Old People's Home run by a religious organisation provides 20 beds.

545. Changes and economies in bed usage over recent years, resulting in particular from the disappearing demand for infectious diseases accommodation, are a feature here, as in a number of other hospitals of a similar size and range of service. As a result beds in wards formerly reserved for infectious diseases, have become available for other purposes. The suggestion that this surplus accommodation might be utilised for the accommodation of psychopaedic cases and perhaps also for stabilised psycho-geriatric patients, is at present under discussion between the Board and the Department. The integration of these services into the general hospital pattern is an interesting concept for a hospital of this size, and if pursued and found effective, could influence the future practice of a number of hospitals elsewhere in the country which are similarly placed.

546. The main item in the building development programme already completed, was the new clinical services block commissioned in 1961. Other works completed were alterations to the laundry and boilerhouse and alterations to the hospital including the provision of Nurses' change rooms. Only works of a minor nature are at present planned. These include modernisation of the heating services in the Nurses' Home, and the provision of a central staff cafeteria.

547. Dannevirke Hospital is closely associated in matters of patient care, with Palmerston North Hospital, and depends largely on it for

visiting consultant services. There is already an appreciable community of clinical interest between the two areas, and the natural development of hospital services for this district would appear to be as recommended in the 1953 Report—namely the linkage of the Dannevirke and Palmerston North Hospital Boards. The larger Palmerston North Hospital would remain the base hospital, leaving Dannevirke to function as a satellite general hospital, with perhaps an added responsibility for psychopaedic and psycho-geriatric care as suggested above—an interesting and provocative possibility.

548. The future use of Woodville Maternity Hospital, situated as it is, only 16 miles from Dannevirke and 17 from Palmerston North and with the low average daily occupancy figure of 1.4 (1969) will then have to be decided.

TARANAKI HOSPITAL DISTRICT

(Population served in 1969—92,030)

549. By Order in Council of 23 July 1968 the former Taranaki, Stratford and Hawera Hospital Board Districts were fused, and the new Board, following election in October 1968 consists of 13 members: New Plymouth City (4); Waitara Borough and Clifton County (1); Egmont County (1); Taranaki County (1); Inglewood County and Inglewood Borough (1); Stratford County (1); Stratford Borough (1); Hawera County, Waimate West District and Manaia Town District (1); Eltham County and Eltham Borough (1); Hawera Borough (1).

550. An earlier proposal to include the Patea Hospital District in this new district, and the objections which followed, had some effect in delaying a final decision on the union of Board areas in this region for almost three years. The decision finally applied—namely the amalgamation of the former Taranaki, Stratford and Hawera Districts under the new Taranaki Hospital Board, and the inclusion of the Patea Hospital District within the territory of the Wanganui Hospital Board (see next section), was consistent with the proposal made in the 1953 Barrowclough Report,[5] and was the solution recommended by Mr L. G. H. Sinclair in his 1968 Report.[6]

551. The Taranaki Hospital Board now serves a population of 92,030. Its hospital pattern, while yet to crystallise within the newly established structure, must ultimately result in a three level service of general hospital cover with continuing facilities provided meantime by the existing isolated maternity hospitals.

552. The pattern which seems likely to evolve is that the Base Hospital will be at Westown. Here, there have already been provided 62 general and geriatric beds and 51 maternity beds, a boilerhouse and laundry and a 104 bed Nurses' Home. Further building projects at the planning or construction stage include:

(a) A new Clinical Services Block.
(b) A new Ward Block with Intensive Care Unit.
(c) A new boilerhouse.
(d) A Special Departments Block containing kitchen and cafeteria, a Physical Medicine Department, tutorial accommodation, and later theatre accommodation.
(e) A building to house a Cobalt 60 Unit.

Other projects at Westown, already approved in principle, are accommodation for house surgeons, and conversion of the present kitchen to a store.

553. Further base hospital facilities will progressively be transferred here, replacing those at present at the New Plymouth Hospital (241 beds). The latter hospital had, by about twenty years ago, been developed to and beyond the capacity of the limited site available, and a phased transfer of facilities to the Westown site was decided. As the new base hospital develops the existing institution can progressively convert to service of longer-stay patients either directly admitted or transferred from the "acute" hospital as it develops at Westown. The first phase of what must necessarily be a lengthy process would involve the concentration here of later-stage, long treatment orthopaedic cases and long-stay medical and geriatric patients. However, the transition period during which this hospital's "acute" function will be run down, will assuredly be a lengthy one, and the alternative uses for it have not yet been agreed.

554. The Board also administers the Waitara Maternity Hospital (10 beds) and the Inglewood Maternity Hospital (8 beds), the latter, which has had a consistently low occupancy, being closed at present.

555. *Hawera Hospital* is the natural sub-base hospital of the new district. With 107 general beds, and an associated maternity hospital (23 beds) it serves a population of 22,240 people (1968 figure) and provides a general medical and surgical service and a range of specialist services provided by visiting consultants. It is not envisaged that this level of clinical provision will need to be increased for a considerable time to come, but the co-ordination of available specialist services made possible under the broader administration will be to the advantage of this area, as to the whole of the new district.

556. In addition to the general and maternity units in Hawera, there are also in this area the Ngahuru Old People's Home (30 beds) and Maternity Hospitals at Opunake (10 beds), Eltham (5 beds) and Kaponga (5 beds). The two latter units are leased to private managers.

557. During the past ten years building projects completed at Hawera Hospital include the conversion of a ward for out-patient purposes, alterations to the operating theatre suite, a new boilerhouse and laundry and new administrative quarters for the medical and nursing staff.

558. A new two-storeyed ward block has just been completed and opened and development plans for a further ward block and Central Sterile Supply Department with conversion of existing wards for other purposes, are at present under consideration. Work is under way on a new laboratory block.

559. *Stratford Hospital.* The third general hospital of the new Taranaki Board is at Stratford 22 miles south of New Plymouth and 13 miles north of Hawera, with 60 general and 22 maternity beds. Over the past 6 years a considerable up-grading of the hospital has been carried out including a 12 bed addition to the Nurses' Home, a central linen room, a 24 bed domestic block, a new boilerhouse and a new 30 bed ward.

560. A further project now under construction is a second 30-bed ward comprising the lower floor of the new block abovementioned. Later it is proposed to build a new theatre block and subsequently rearrange the facilities in the present accommodation.

561. Staffed as they are, to provide a very good level of general medical and surgical care, the function of both Hawera and Stratford Hospitals are unlikely to change materially in the near future.

562. Five private hospitals are operated in this district, providing 53 medical and surgical beds, 26 medical beds and 10 maternity beds, and

there are two Hospital Boards Old People's Homes providing 63 beds, and three privately operated with 37 beds.

WANGANUI HOSPITAL DISTRICT

(Population served in 1969—75,830)

563. This hospital district was, on 12 October 1968, enlarged by the amalgamation with it of the former Patea Hospital District, comprising of Patea Borough, Waverley Town District and Patea County. This was in line with the recommendation made in the 1953 Barrowclough report and repeated by L. G. H. Sinclair in 1968.[6]

The new Wanganui Board is thus augmented by the addition of Patea Hospital (50 general and 10 maternity beds) and of the Waverley District maternity home of 4 beds, the latter institution managed by a local committee and formerly subsidised by the Patea Hospital Board.

564. The remainder of the Wanganui Hospital Board area consists of a deep segment of country penetrating into the centre of the King Country to reach Ohakune and the fringe of Tongariro National Park, taking in Raetihi (Waimarino Hospital—22 general and 10 maternity beds) and southwards on the Main Trunk Railway to Marton. In this area it includes in turn:

(i) Waiouru Military Camp and township. Here the Board has established and leased to a private operator, a maternity home of 6 beds formed by linkage of three adjoining state houses, similar to the facilities established in Murupara, Porirua and Kawerau, both the latter now replaced by planned maternity homes.

(ii) At Waiouru there is also the army hospital of the Military Camp (50 beds) serviced by Army personnel and using as required the consultant services and transferral facilities of the Hospital Board.

(iii) Taihape Hospital, a general practitioner-operated facility consisting of a 42 bed general unit and a 12 bed maternity home. Additions and alterations to the men's and children's ward, have recently been completed.

(iv) At Hunterville, a 5 bed maternity home somewhat insecure in staffing, particularly over recent years.

(v) Marton Maternity Home of 16 beds, with an occupancy rate about 60 percent slowly increasing.

(vi) In Wanganui City—

(a) The Base Hospital (231 general and 52 obstetric beds) development over the past decade has included:

(i) A 52 bed obstetric unit.
(ii) A new Nurses' Home, and
(iii) A 60 bed ward block with a 4-theatre suite.

Now in construction is a Clinical Services Block to replace and concentrate the outdated and overcrowded areas at present serving pathology, radiology, out-patients/casualty, physio and occupational therapies scattered throughout the present hospital.

(b) Jubilee Hospital and Home (96 beds) has consistently maximum occupancy and the Board has a programme of upgrading in planning. The forward programme of development is:

(i) A physical medicine block at Jubilee Hospital.
(ii) A new heating system at Waimarino Hospital, Raetihi.

(iii) A new laundry at Wanganui Hospital.
(iv A new building at Taihape to replace existing obsolescent accommodation.

565. Six private hospitals in the Board's District provide 38 medical and surgical beds, 25 medical beds, 26 children's beds and 9 maternity beds. Two Old People's Homes providing 73 beds are operated by religious and welfare organisations and 5 private homes provide a further 56 beds.

Located within the Board's district is the Lake Alice Psychiatric Hospital which will continue to operate as a national facility under the administration of the Department of Health.

PALMERSTON NORTH HOSPITAL DISTRICT

(Population served in 1969—108,940)

566. In the light of its own considerable growth of services, its programmed development, and the parallel expansion to full status of Massey University, Palmerston North Hospital Board ranks next in stature and performance to Auckland, Waikato, Wellington, North Canterbury and Otago. Centred on Palmerston North City it serves an area of more than usually compact population, all of it within reasonable distance from the main centre.

The facilities at present operated by the Board are: Palmerston North General Hospital—424 general and 63 maternity beds; Awapuni Hospital —132 geriatric and Old People's Home beds; Feilding Maternity Hospital—20 maternity beds; Levin Maternity Hospital—22 maternity beds; Otaki Maternity Hospital—10 maternity beds; Foxton Maternity Hospital—5 maternity beds; Horowhenua Geriatric Hospital (Levin)—50 beds. (The Board in addition service clinics, both medical and surgical, at regular intervals at Levin staffed by consultants from the central unit and some additional bed facilities are under consideration).

567. Further facilities in the Board's district, but not under its jurisdiction include the Levin Hospital and Training School 750 beds (Division of Mental Health), and substantial private general medical and surgical units in Palmerston North (75 beds), Levin (10 beds) and Feilding (13 beds). In Levin there is also the War Veterans' Home with 20 medical beds and 114 beds for old people. A further 60 Old People's Home beds are provided in two homes run by religious and welfare organisations, and 78 in privately operated homes. At Feilding there is also the School for the Deaf.

568. The Board faces a twofold problem of the replacement and upgrading of a considerable proportion of its existing patient and clinical services accommodation, and concurrently, though less urgently, the planning and implementation of development aimed at meeting the future forecast needs of the district and any additional commitments resulting from possible amalgamations with adjoining districts.

569. Major works completed during the past ten years have been a 40 bed maternity block in 1957, extended in 1963 by the addition of a further 40 beds, a supervoltage unit, additions to kitchens and laundry, additions to theatre accommodation, a bulk medical store, and accommodation for Medical Officers, all at Palmerston North; the commissioning of the 50 bed geriatric hospital at Levin already mentioned, and a 56 bed addition to the Old People's Home at Awapuni.

570. Priorities in early further development include a 40 bed unit for the reception, assessment and early treatment of psychiatric cases now

under construction, a clinical services and ward block, a rehabilitation unit, a new boilerhouse and laundry, and a 60 bed addition to the Nurses' Home.

571. Any consideration of this Board's forward development must take account of the possibility of absorption by it of the area presently controlled by the Dannevirke Hospital Board and the northern area of the Wairarapa Hospital District which the 1953 Report recommended should become part of a reconstituted Palmerston North Hospital District. Absorption of these areas would in fact present no serious difficulty in view of their contiguity, existing ease of communication, and the social and clinical contacts which have already been developed.

572. Two developments of significance in this area are:

(i) The forthcoming additions on the base hospital site, of the 40 bed psychiatric unit noted above, and

(ii) The rehabilitation unit to cater for both in-patients and out-patients, planned to fulfil the recommendations of the Royal Commission of Inquiry into Compensation for Personal Injury in New Zealand, whose report was published in December 1967.[35]

573. Here also there was established the third of the six units now offering megavoltage radiotherapy. In addition to covering the needs of a wide area beyond its immediate district, it also provides both in-patient and out-patient services through visiting clinic sessions, to its neighbours.

WAIRARAPA HOSPITAL DISTRICT

(Population served in 1969—45,300)

574. Based on Masterton Hospital (152 general and 30 maternity beds) this Hospital Board is responsible also for Greytown (18 general, 56 Old People's Home (Buchanan) and 5 maternity beds) and Pahiatua (29 general and 12 maternity beds) as its minor supporting hospitals, and for small maternity homes at Eketahuna (5 beds), Carterton (7 beds), Featherston (8 beds) and Martinborough (5 beds), all showing diminishing figures of usage. The Board administers a long slim territory mostly sparsely occupied, but traversed by a secondary national highway and with little problem in terms of central transport. The low occupancy figures and disturbingly high patient costs in these peripheral maternity units calls for a critical assessment of present facilities. The Hospital Board has itself given some consideration to its problems in this field, resulting in an earlier suggestion for closure of some of these smaller institutions; this, however, has not occurred. It is clear nevertheless that the area is, in respect at least of maternity beds, over-provided and that concentration of these facilities can be only to the district's advantage.

575. The reversionary use of any accommodation made available from reorganisation of these services is uncertain but it would probably best serve the early transfer and geriatric demands of the area. The hospital facilities could also be available to support domiciliary services (home nursing, meals-on-wheels, etc.) to an extended degree in relief of acute accommodation at the base hospital.

576. Recent developments in the Board's institutions during the past five years have been: New boilerhouse and boilers, new laundry, a 62 bed ward block, tutorial block and X-ray additions at Masterton Hospital and an 11 bed ward block at Pahiatua Hospital.

Approved forward developments are: at Masterton Hospital, a theatre and Central Sterile Supply Department now nearing completion, a new

store and workshops, a laboratory and mortuary; and a dining room block at Pahiatua.

577. Possible further improvement of transport facilities between Wairarapa and Wellington areas by way of traffic tunnels, overways, etc., can only increase the usage by the Wairarapa of the hospital and other medical advantages of the Wellington Hospital Board, a pattern of co-operation already defined and long practised.

578. Any further development in the way of Hospital Board amalgamation (not discussed in the 1953 Report nor at present foreseen) can only, it is considered, be towards an administrative linkage with the Wellington district, thereby completing an association of hospital interests which has steadily increased over many years past.

579. The Board, basing its policy upon increasingly supported opinions in New Zealand and abroad, has for some time past been concentrating provision for other than minor or immediate emergency surgery upon its base at Masterton, and it is expected that the existing accommodation for general cases at Pahiatua and Greytown will in future in the main serve best to relieve beds at base by taking an increasing transfer of early convalescent cases belonging to their district, and by assuming the care both of long stay post-surgical patients and of geriatric medical patients. Possible realignments of hospital districts (vide 1953 Report) would affect the control, but should not affect such future function of the present Pahiatua Hospital, should it later come under the responsibility of the Palmerston North Board.

580. Six private hospitals serve this district, 4 at Masterton providing 14 medical and surgical beds, 22 medical and 2 maternity beds, one at Carterton with 5 medical beds and one at Pongaroa with 3 maternity beds. Two Old People's Homes run by religious and welfare organisations provide 38 beds. The St Raphael Home of Compassion provides 23 beds at Carterton for severely handicapped patients mostly suffering from mental sub-normality.

WELLINGTON HOSPITAL DISTRICT

(Population served in 1969—308,030)

581. The Wellington Hospital Board district has as its northern boundary the Waikanae River and as its eastern boundary the Rimutaka Range. The four cities of Wellington, Hutt, Upper Hutt and Porirua contain the greater part of this population.

582. The Wellington Hospital Board has two major general hospitals —Wellington Hospital (905 general and 48 maternity beds) is the Metropolitan Base Hospital and includes the Medical Unit of 28 beds (epidemiological research); Hutt Hospital (389 general and 77 obstetric beds) is the general hospital for the Hutt Valley. Silverstream Hospital (243 beds) caters for long-stay orthopaedic, medical and geriatric cases, and four maternity hospitals at Upper Hutt (Elderslea—40 beds), Porirua (Kenepuru—47 beds), Paraparaumu (15 beds), and Wellington, (St Helens—60 beds, 20 of which are at present used as nurses' accommodation) cater for the obstetric needs of the district. The last named is a training hospital for midwives and maternity nurses.

The Board also administers Central Park Old People's Home of 100 beds.

Private facilities in the district consist of 14 private hospitals providing 168 medical and surgical beds, 110 medical, 19 maternity, 18 psychiatric,

and 52 children's beds. There are 15 Old People's Homes run by religious and welfare organisations providing a total of 542 beds and a further 14 homes with 162 beds privately operated.

583. The Board's district divides into three naturally defined areas—Wellington, Hutt Valley and Porirua Basin. The populations of these areas for 1966 and those predicted for 1986 are:

Area	1966	1986
Wellington ..	127,000	155,000
Porirua	52,000	117,000
Hutt	113,000	220,000
Total ..	292,000	492,000

584. It can be noted that the population of the Wellington urban area is expected to increase much more slowly than the Hutt and Porirua areas. Consequently the forward building programme at Wellington will be mainly the replacement of outdated wards and services which in some cases are a seismic risk. In the Hutt and Porirua areas, on the other hand, the need is for additional beds, the provision of which will involve the building of a new general hospital at Porirua and an increase in the present number of beds at the Hutt Hospital. Silverstream Hospital is regarded as nearing the end of its effective life about 1975. It is planned that at that stage it should be possible to relocate its patients at the Wellington, Hutt and Porirua Hospitals. At a later date a further general hospital will be required in the Upper Hutt area and land has been zoned for this purpose in the Hutt County District Scheme. Land has also been acquired in Wainuiomata for the future provision there of maternity accommodation. The timing of this latter is related to the sufficiency of maternity beds in the Hutt Valley to meet regional requirements.

585. Major works completed during the past ten years or so have included a new nurses' home providing 235 beds, a cobalt therapy unit, the Seddon Block providing 167 beds together with an X-ray Department and cardiothoracic theatre, laundry extensions, kitchen alterations, and provision of junior medical staff accommodation, all at Wellington Hospital; a new Maternity Wing of 60 beds and Nurses' Home additions of 100 beds at the Hutt Hospital; and maternity units at Paraparaumu (15 beds), Upper Hutt (40 beds) and Porirua (43 beds).

586. The forward building programme of the Board includes:

(i) *Block "B", Wellington Hospital.* A new 12 storeyed clinical services block to contain radiology, pathology, operating theatres, intensive care units, physical medicine department and medical centre, now building.

(ii) *Block "C", Wellington Hospital.* A new ward block of approximately 150 beds with casualty and out-patient facilities to allow demolition of some of the older wards.

(iii) *Porirua General Hospital.* A general hospital is being planned to cope with the population growth in the Porirua area. It is intended to integrate the hospital with the immediately adjacent Psychiatric Hospital (1,119 beds). As far as is possible services such as laundry,

store and boilerhouse will also be shared. The hospital is being planned initially for 300 beds with ultimate development to 660 beds and will be sited adjacent to the existing Kenepuru Maternity Hospital. Discussion between the Hospital Board and Department on conjoined planning is well advanced.

(iv) *Redevelopment of Hutt Hospital.* Planning is in progress to enlarge the Hutt Hospital from its present 436 beds to an ultimate 600 beds. Some of the present wards were built as a temporary measure during World War II; these must be demolished and replaced. A new clinical services block is also being planned to contain radiology, pathology, theatres, casualty, out-patient and physical medicine departments.

(v) *St Helens Hospital.* Accommodation for 18 nurses, a matron's flat, a kitchen/dining room and a tutorial block have been planned for the St Helens Hospital in Wellington and a tender for the first stage of this work has been accepted. This will consolidate facilities at present spread over a number of old buildings.

(vi) *Psychiatric Unit, Wellington Hospital.* It had been intended to convert the present Victoria Ward to a psychiatric unit to provide for 30 in-patients and 40 day patients. An early examination of this proposal, however, showed that such a conversion would be inadequate and at the same time costly and approval has been given to the preparation of sketch plans of a new Psychiatric Unit in this general area.

(vii) *Other Items—Wellington Hospital.* These include upgrading the Ewart Block, new boilerhouse and stores buildings, and the purchase of Alexandra Hospital to provide accommodation replacing that recently demolished to clear the site for Block "B".

587. In addition to providing one of the two cardio-thoracic surgical units and one of the three neuro-surgical units in the country, the Wellington Hospital Board has recently established the second renal transplant unit.

MARLBOROUGH HOSPITAL DISTRICT

(Population served in 1969—27,420)

588. Wairau Hospital at Blenheim (178 general beds) is the base hospital for the district with Holmdale Maternity Home (30 beds) on a separate site in the borough. In addition the Board administers Picton Hospital of 5 general and 6 maternity beds at the port township some 18 miles north of Blenheim.

At Wairau Hospital is also the Amersfoote Old People's Home (48 beds).

There is one private hospital at Blenheim with 15 medical and surgical beds, and one Old People's Home operated by a religious organisation with 8 beds.

589. The major work recently completed at Wairau Hospital is a new Clinical Services Block to centralise and replace obsolete and inadequate facilities.

Forward Building Programme

590. In due course, the present maternity unit must be brought into the general hospital complex. The Hospital Board administration unit now situated in the commercial area and some two miles from the hospital will also be planned for resiting at the hospital.

591. Future development in line with the Barrowclough Committee recommendation, is for amalgamation into a new Wellington Hospital Board. With present facilities for consultant provision and increasing ease of cross-Strait access, this recommendation still appears to point the logical future for the district though at an indefinite forward date (see paragraph 599 below).

NELSON HOSPITAL DISTRICT

(Population served in 1969—56,330)

592. Geographic situation and transport communications are significant factors in the present functioning and future prospects of this district. As with Marlborough, the Nelson area depends largely on Wellington for its consultant services, and for any necessary transferral of patients, but has the disadvantage of having only air travel direct for patients, the alternative being ferry traffic via Picton, this latter involving first some 90 miles by road.

593. The base hospital is at Nelson (231 general and 38 maternity beds). Alexandra Old People's Home (40 beds) is situated at Richmond. Maternity hospitals administered by the Board are at Motueka 36 miles away (12 beds), Takaka 66 miles away (7 beds), Murchison 81 miles away (6 beds) and Collingwood 83 miles away (4 beds).

594. At the base hospital, considerable development of the obsolescent portions of the old Nelson Hospital has been effected during the past ten to twelve years including the construction of a new 4-storey ward block (1956–58), additions to Nurses' Home (1958–61), a new boiler-house (1959–60), alterations to Maternity Ward accommodation (1964), and a new theatre recovery ward (1966).

Future Building Programme

595. (i) *Base Hospital.* The damage suffered by substantial areas of existing patient accommodation in the earthquake of May 1968 has necessitated radical revision of the forward building development programme which had already been substantially agreed. Two wards (Wards 2 and 3) have now been demolished, and the third (Ward 1) has been reinstated and extended to meet immediate needs.

The planning of a new Clinical Services and Ward Block, to contain 90 beds in addition to theatres and clinical services, is under way. After this block has been completed and occupied, it is planned eventually to demolish Ward 1 leaving its site available for a further ward block when required.

(ii) *Other Institutions.* A new 12 bed maternity hospital at Motueka has recently been completed and a proposal to convert the old maternity hospital building to a 13 bed geriatric unit has been provisionally approved.

596. In recent years there has developed a very effective co-operation between Nelson Hospital and the adjacent Braemar Hospital and Training School, particularly in the matter of medical staff coverage. The acknowledged need to replace much sub-standard accommodation at Braemar provides an opportunity for reappraisal of the use of all mental health facilities in the region. There have already been preliminary discussions on likely trends and some initial moves are being made towards the complete integration of mental health facilities with the general hospital

and other resources in the area. Hospitals administered by the Division of Mental Health are Ngawhatu Hospital, Stoke (570 beds) and Braemar Hospital and Training School, Nelson (223 beds).

597. For geographical reasons, the pattern of maternity hospital provision in the Board's area is likely to remain substantially as at present. Takaka Hospital, 66 miles from Nelson and 30 from Motueka, although it has a low bed occupancy figure of 1.0 (1969), is an essential facility to cover the maternity needs of an area difficult to service from outside. Some 17 miles to the west, however, the Board also maintains—somewhat intermittently due to problems of staffing and patronage—the 4 bed maternity unit at Collingwood, which has an average bed occupancy of considerably less than 1.0. Since Collingwood is reasonably accessible to the other slightly larger unit at Takaka, which is also not fully utilised, there appears to be a good case to concentrate the maternity facilities for the whole area at Takaka.

598. Murchison Maternity Hospital is again a necessary facility for an area some 81 miles from the base and dependant upon rather difficult communications. With 6 available beds, the average bed occupancy is around 0.7 (with a maximum, however, of 4 in 1968). The question arises here, as in the case of some other small and isolated communities of the possibility of some modification of purpose for the unused portion of available beds, e.g. for the early transfer of patients from the base hospital. Alternatives such as this must be given early consideration in order to ensure the most efficient usage possible.

599. The 1953 Barrowclough Report[5] recommended that no change should be made in the existing Nelson Hospital District and Board. So long as communications remain as at present, the essential linkage with, and dependance on Wellington Board's services will continue.

600. The Nelson Hospital District is served by three private hospitals at Nelson, Tahunanui and Stoke, providing 17 medical and surgical, and 21 medical beds. There are also two Old People's Homes operated by religious organisations, providing 52 beds and one operated by a private individual (10 beds).

WEST COAST HOSPITAL DISTRICT

(Population served in 1969—35,450)

601. Newly formed under the Order in Council of 23 July 1968, after the local body elections of 12 October 1968, this District now combines the former Hospital Districts of Buller, Grey, Westland and Inangahua and assumes responsibility for all the areas previously served by their Boards.

602. This amalgamation into one hospital district of a coastal paralpine area approximately 350 miles long north-south and an average 20–40 miles deep is a significant move towards:

(a) A consolidation and rationalising of the hospital services already available on the coast; and

(b) Improving—or indeed introducing—consultant services at present either non-existent, in short supply, or in abeyance. Viewed in parallel with a recognised short supply of medical practitioners for the whole coast area—and against a long existant and doubtfully supportable requirement by some occupational groups for locally continuous medical cover, e.g. of individual mining areas, which in turn has in the past locked up services which could have

relieved a general need in the district—the co-ordinated responsibility of the new Board and the possibilities of more efficient deployment of the services of its medical staff must improve both the assurance and the degree of clinical service throughout the area.

603. Problems of transport both within the Board's district, and to places outside will no doubt remain, but a major improvement should follow the recent establishment of an air service link with Christchurch. This could materially affect the pattern of West Coast hospital procedure by allowing easier transfer of patients for specialist treatment elsewhere, by facilitating visits to the district by consultants.

604. The new Board is being supported with regard to terms of salary and conditions of service, in order to attract and retain those specialists —in medicine, surgery, radiology, pathology and anaesthesia—essential to the functioning of such a regional service and to its proper conjunction with the patient services available in major centres outside. The pattern of call upon such outside centres has hitherto, as practised by a group of independent authorities, been at the least unco-ordinated, and it could be claimed that the resources of the area have not been availed to the best clinical or economic advantage. The conjunction represented by the newly amalgamated Board provides opportunity for improved patient service throughout the area.

605. Over the past several years, programmes of physical development have been discussed with and furthered by the Department in all four regions of the new conjoined Board. These include:

(i) *Grey Hospital* (74 General, 21 Maternity). New ward blocks, boilerhouse, laundry and trades block, new clinical services and theatre blocks, and the provision of temporary ward and laboratory accommodation, this temporary accommodation being required to replace buildings damaged by the recent earthquake.

(ii) *Buller Hospital* (Westport—73 General, 16 Maternity). A new maternity hospital at Karamea (3 beds); the new Kynnersley (Old People's Home at Westport—27 beds); two new 30 bed wards, upgrading of the kitchen, and approval to call tenders for a new theatre block and clinical services and administration block at Westport.

(iii) *Westland Hospital* (Hokitika—76 general, 11 maternity). A new maternity ward, and X-ray block, provision of additional boilerhouse accommodation and boilers, alterations and improvements to the kitchen and physiotherapy department and extensive upgrading and addition to the Old People's Home. The use of a common laundry for Seaview and Westland Hospitals foreshadows the integration of general and mental services.

606. The earthquake of April 1968 damaged both Grey and Westport Hospitals and resulted in variations and accelerations of building programmes. At the conclusion of these works, organisation of the West Coast Board will be:

(a) Grey—Base Hospital.

(b) Westport, Hokitika, Reefton—District or Satellite hospitals, the orthopaedic services for the coast being transferred as early as reasonably possible to the Base Hospital.

(c) At an early suitable date, and as policy is implemented, the alliance of general hospital with the contiguous mental health unit at

Hokitika into one hospital facility under the control of the West Coast Board and with one Medical Superintendent.

(d) As long as present circumstances of distance, accessibility, etc., persist, the maternity units at Karamea and Whataroa may well have to be maintained. Greater use than at present should probably be made in each case, e.g. for short-admission resuscitative care of general cases from their area—service which will become more effective as roading/air facilities are improved.

607. The West Coast Hospital district has no private medical or surgical hospital operating and as a consequence the Board's hospitals must be capable of coping with the full patient load which in other areas would be shared between the Board and private hospitals. One Old People's Home run by a religious organisation is situated at Westport and provides 37 beds.

608. A further effect of the absence of private hospitals in the West Coast District is that specialist physicians and surgeons have no facility for the treatment of private patients and as a consequence part time visiting hospital appointments for specialists are difficult to fill in this district. Specialist appointments to the Board must be generally on a whole-time basis apart from those specialists who pay periodical visits from other areas, e.g. opthalmologists and E.N.T. surgeons.

609. Doctors serving "special area" medical practices on the West Coast are located at Waimangaroa, Granity, Karamea and Ngakawau in the Buller County, Whataroa in Westland County and Dobson and Runanga in the vicinity of Greymouth. In the past the Buller Hospital Board acted as agent of the Department for administrative management of Waimangaroa, Granity, Karamea and Ngakawau Special Areas and a similar arrangement applied in respect of Whataroa which the Westland Board administered for the Department. Dobson and Runanga were administered directly by the Medical Officer of Health, Nelson.

610. The Department sees advantages in the new West Coast Hospital Board assuming responsibility for control of all the special areas in its district.

NORTH CANTERBURY HOSPITAL BOARD

(Population served in 1969—309,590)

611. This District covers an area extending from the Rakaia River in the south to the Clarence River in the north bounded in the west by the Southern Alps and in the east by the sea. It also includes the Chatham Islands 440 miles to the east where there is a small hospital of one general and three maternity beds operated for the Hospital Board by Missionary Sisters of the Society of Mary.

612. In addition to serving a substantial population which is steadily if not dramatically growing, the North Canterbury Board is increasingly undertaking responsibility for regional services of north and mid-Canterbury while at the same time giving cover to a number of specialist requirements to the new West Coast Hospital District.

The recent introduction of a direct Christchurch-Hokitika plane service should facilitate assistance given to the Coast from Christchurch. In addition the Ashburton Hospital District has become increasingly dependent upon the North Canterbury services.

613. The North Canterbury Board's base hospital is Christchurch Hospital (427 general beds); in the metropolitan area is also Princess

Margaret Hospital (252 general beds), including the medical unit of 30 beds (endocrinology and population surveys), Burwood Hospital (255 general and 22 maternity beds) and Coronation Hospital (137 general beds) dealing mainly with geriatrics and a few tuberculous patients. Christchurch Women's Hospital, formerly known as St Helens, provides both obstetrical and gynaecological facilities for 92 patients.

The Board also administers the Jubilee Home in Christchurch (46 general and 42 Old People's Home beds), the Huntsbury Children's Home (32 beds), and Lyndhurst Home (22 Old People's Home beds). At Kaikoura is a small hospital (19 general and 10 maternity beds) and at Oxford, one of 13 beds mainly for long-stay patients.

Maternity hospitals are maintained at Christchurch Essex Hospital (27 beds), Rangiora (10 + 14 general beds), Waikari (9 + 3 general beds), Darfield (8 maternity beds), Lincoln (7 maternity beds), Ellesmere (5 + 2 general beds), Kaiapoi (7 maternity beds), Akaroa (4 + 3 general beds), Cheviot (4 maternity beds) and at Waitangi in the Chatham Islands (3 + 1 general beds).

There are 12 private hospitals in Christchurch, providing 207 medical and surgical beds, 202 medical, 58 maternity and 35 children's beds. Religious and welfare organisations provide a further 711 beds for old people in 17 homes, and there are 30 privately run homes with 365 beds.

614. Works commissioned during the past decade include a cobalt radiotherapy unit, tutorial block, new bulk store, laundry extensions and new boilerhouse at Christchurch Hospital and a tunnel access to the buildings on the Manse site adjoining. At the Princess Margaret Hospital, commissioned in 1958, accommodation was built for 428 nurses. At Burwood Hospital a 62 bed nurses' home, new boilerhouse and a theatre, X-ray and laboratory block have been completed, at Coronation Hospital ward alterations made and an automatic fire sprinkler system installed, and at Christchurch Women's Hospital, a new gynaecology department and associated operating theatres completed.

615. Forward development planned includes a ward block of 277 general beds, and a clinical services block at Christchurch Hospital. Tenders have been accepted for a new dental department, a linear accelerator building is under construction, and alterations and additions to provide an accident and emergency department have been completed. At Princess Margaret Hospital the calling of tenders for two new geriatric wards (68 beds) and occupational therapy workshops with associated facilities has been authorised. The ultimate development of this Hospital envisages a further wing of 300 acute beds. A new kitchen and dining room are to be built at Burwood Hospital. A new boilerhouse is planned for Coronation Hospital.

616. It is obvious that future development of the North Canterbury Hospital Board must involve progressive integration of the hospital services with those of Ashburton and increasing aid to the West Coast Hospital Board.

ASHBURTON HOSPITAL DISTRICT

(Population served in 1969—24,530)

617. Ashburton Hospital (130 general and 21 maternity beds) serves a farming area of plains and high country some 52 miles from Christchurch. Other units administered by the Board are maternity hospitals

at Methven (6 beds) and Rakaia (5 beds), and "Malvern" geriatric annexe in Ashburton (14 beds).

There are no private hospitals in the district. A religious organisation runs an Old People's Home providing 16 beds.

618. "Tuarangi" Home is a mixed Old People's Home and Hospital previously operated (with support from a Trust) by the North Canterbury Hospital Board. Amending legislation was included in the Hospitals Amendment Act 1968, placing this home under the control of the Ashburton Board.

Forward Building Programme

619. Proposals for a new 22 bed maternity ward have reached the working drawing stage. When this is completed and occupied, the Board has plans to use the present maternity accommodation for patients from Ward 1, thus allowing the latter to be demolished and rebuilt. At some future date a new clinical services block is envisaged.

620. Despite there being no recommendation to this effect in the Barrowclough Report, the advantages of amalgamation with the North Canterbury Hospital Board merit early evaluation.

SOUTH CANTERBURY HOSPITAL DISTRICT

(Population served in 1969—54,520)

621. This district serves a city population in Timaru and an extensive rural population in an area extending from the Southern Alps to Canterbury Bight.

622. Timaru Hospital (221 general beds and 36 maternity beds) provides facilities for all major surgery and the greater part of the Board's acute medical needs. This is administered in conjunction with the Talbot Hospital (78 long stay geriatric beds) and "The Grange" (35 "frail ambulants"). In addition are Waimate Hospital (62 general and 12 maternity beds) and at Temuka (8 maternity beds), Geraldine (8 maternity beds) and Fairlie (4 maternity and 2 general beds). There is also a geriatric hospital at Geraldine (9 beds).

There are two private hospitals in Timaru providing 28 medical and surgical and 10 maternity beds, and one in Geraldine with 10 medical/surgical beds. Five Old People's Homes run by religious and welfare organisations provide 114 home and 10 hospital beds.

623. While the Board has at Timaru the facilities and staff to cater for all the more usual medical and surgical procedures it looks in general to the North Canterbury Hospital Board for regional specialties.

624. The Board's development programme includes a clinical services block with facilities for out-patients, accident and emergency, physiotherapy, occupational therapy, C.S.S.D., theatres and medical and nursing administration and some patient accommodation. Space vacated on the commissioning of this block will be used to accommodate the Hospital Board's administrative offices at present located in the central city area.

There is later forward planning for a north ward block to be followed by a south ward block.

WAITAKI HOSPITAL DISTRICT

(Population served in 1969—23,620)

625. This district is situated south of the Waitaki River, the historic boundary between the Canterbury and Otago Provinces. The Waitaki

Board looks mainly to Dunedin for the specialist services not available within its own structure and most of its contacts are in that direction.

626. Oamaru Hospital has 141 general and 15 maternity beds; the Board also administers the Victoria Old People's Home with accommodation for 46 elderly people, and two rural maternity hospitals at Kurow (at present temporarily closed) and at Otematata (eight maternity beds). With the completion of the hydro-electric construction project in the Otematata area the population of the "village" there is rapidly diminishing.

627. There are two private hospitals at Oamaru providing 15 medical and surgical and 37 medical beds. One Old People's Home run by a religious organisation provides 36 home beds and 37 hospital beds.

628. Waitaki Hospital Board's district being long settled and with a relatively stable population there are at present no major physical developments in train at Oamaru Hospital except for improvements and additions to the theatre and the dispensary and for the provision of a central sterile supply department.

629. With a Hospital District population of less than 1 percent of the national total, the future of this area must before long come into question. While no formal consideration has so far been given to the matter, the alternatives of fusion with the Otago area or to form a new district with the present South Canterbury area, appear the only possibilities.

OTAGO HOSPITAL DISTRICT

(Population served in 1969—125,280)

630. The Otago Hospital Board District includes the city of Dunedin, the boroughs of St Kilda, Green Island, Mosgiel, Palmerston, Lawrence, Roxburgh, Tapanui and Port Chalmers and the counties of Waihemo, Waikouaiti, Taieri, Peninsula and Tuapeka.

631. It would be invidious to attempt a compression within this paper of the illustrious background of the Otago Hospital and Medical School already so fully portrayed by Sir Charles Hercus and Sir Gordon Bell in "The Otago Medical School Under the First Three Deans".[7]

632. Dunedin Hospital has a long and distinguished record of patient care and student training. It has been assisted by the Batchelor Maternity Hospital, now replaced by Queen Mary Hospital (90 beds), the Seacliff group of hospitals (1,271 beds) for psychiatric and psychopaedic care and latterly by Wakari Hospital (235 beds). Dunedin Hospital itself has 339 general beds, Queen Mary Obstetric Hospital (90 beds) and under the aegis of the Board and on the hospital site is also the New Zealand School of Physiotherapy. The role and prospects of Otago in the future in medical undergraduate education are considered elsewhere in this paper (see Chapter III, paragraphs 223–230).

633. The Board in addition is responsible for Parkside Geriatric Hospital (105 beds), Fulton Old People's Home on the Parkside site (60 beds), and Hill Jack Hospital (26 beds), formerly a T.B. hospital and now serving as relief accommodation before its eventual disposal, and five smaller hospitals at Mosgiel (17 maternity beds), Palmerston (5 maternity and 1 general bed), Tuapeka (4 maternity and 7 general beds), Tapanui (3 maternity and 7 general beds), and Roxburgh (8 maternity and 4 general beds).

There are twelve private hospitals in Dunedin with 72 medical/surgical beds, 196 medical beds, 12 maternity beds and 32 children's beds, and one licensed institution (psychiatric) of 90 beds which accepts patients

from all parts of New Zealand. Eighteen Old People's Homes operated by religious and welfare organisations provide a total of 361 home and 130 hospital beds and 5 privately owned homes, a further 64 home beds.

634. Recent major additions and improvements to the main hospital are: at Dunedin a new boilerhouse and laundry, a new administration and stores block, and at Wakari, a cobalt megavoltage therapy unit. In 1968 a modern clinical services block was commissioned as a first stage in redevelopment of Dunedin Hospital.

635. A new ward block with clinical teaching departments is in planning to replace present obsolete accommodation. Additions are under way for Queen Mary Obstetric Hospital to provide a School of Obstetrics and Gynaecology; temporary additional geriatric accommodation to be built at Parkside Hospital (which unit itself is planned for replacement by the major building programme), and at Wakari a psychiatric admission-early treatment unit of 40 beds is due for commissioning by the end of 1970.

These developments will provide a total of some 940 general beds for patient care and teaching. In addition are the 90 private psychiatric beds at Ashburn Hall and 1,266 beds at the Seacliff group of hospitals where there is a wide range of clinical material suitable for teaching.

636. The early forward hospital administrative pattern of the Otago province envisages the amalgamation of the minor districts of Maniototo and Vincent into the Otago Hospital District. Both are already in varying degree dependent upon Otago, and the recommendation of the 1953 Committee holds with even greater force and reason today.

637. The longer term future of the whole provincial area must involve a closer appraisal of the place of the Waitaki Board in the north and the South Otago Board.

SOUTH OTAGO HOSPITAL DISTRICT

(Population served in 1969—17,490)

638. Balclutha Hospital (113 general and 21 maternity beds) is the general hospital. The Board also administers Milton Hospital (18 medical, and 6 maternity and 4 non-hospital beds), Owaka (22 medical and 4 maternity) and the Eventide Old People's Home at Kaitangata (17 beds).

639. In the past ten years major works completed at Balclutha Hospital have been a nurses' home addition (38 beds), theatre and maternity block extensions (6 maternity beds), boilerhouse additions and store (1965) and alterations and improvements to the out-patient block.

640. The forward building programme includes a 30 bed ward block replacing an older ward and the conversion of the top floor of the household staff quarters block to a tutorial department. Later development envisages extensions to the clinical services facilities including provision of a new laboratory and the construction of a new maintenance workshops block.

641. This Board serves a population of less than 1 per cent of the national total, and the problem of its administration must be considered in the near future. There appears little doubt that this district must become part of the Otago Hospital Board District.

VINCENT HOSPITAL DISTRICT

(Population served in 1969—8,610)

642. Dunstan Hospital (30 general and 11 maternity beds) is the main hospital. The Board also administers Cromwell Hospital, twelve miles

distant (28 general, 10 maternity and 7 Old People's Home beds).

643. The Board depends for consultant services and for some routine services both clinical and domestic (e.g. pathology and laundry) on the Otago Hospital Board. This relationship has developed on a steadily increasing scale.

644. There appears to be every reason to support and further the recommendation of the 1953 Barrowclough Committee[5] that this area (and the adjoining Maniototo district) should be added to the present Otago Hospital District to form a new Otago Hospital District.

MANIOTOTO HOSPITAL DISTRICT

(Population served in 1969—2,850)

645. The hospital and centre for this Hospital Board is at Ranfurly (19 general and 8 maternity beds). It depends for all specialised services upon the Otago Board.

646. The Board has under construction a unit to provide an additional six patient beds for long stay geriatric patients. A new operating theatre was commissioned in 1967.

647. The size of this hospital and the standard to which it is equipped are well suited to its purpose in its community. Again there is every reason to support the Barrowclough recommendation of amalgamation into a new Otago Hospital District.

SOUTHLAND HOSPITAL DISTRICT

(Population served in 1969—111,260)

648. The Southland Hospital Board administers the most extensive district in New Zealand consisting of majestic fiords and lofty mountains and lakes in the west and fertile farmlands in the east.

649. Invercargill, the provincial centre, has made steady progress as a distributing and manufacturing centre for the prosperous Southland agricultural industries, but with the development of a large aluminium smelter at Bluff it appears destined for accelerated progress as a manufacturing and industrial centre.

650. The Board's principal hospital is at Kew (280 beds). A boilerhouse and laundry were recently completed. A new clinical services block has just been commissioned.

The Board's administrative offices and also its largest maternity hospital (50 beds) are at Dee Street in the city centre but it is planned that these buildings should both be vacated as soon as replacement accommodation can be completed at Kew Hospital. The forward building programme for this hospital also includes a 60-bed addition to the Nurses' Home, a new 120 bed ward block, a new physical medicine department, a new garage and engineering workshop, and a new mortuary.

651. The Southland Board also administers at Gore the Seddon Memorial Hospital (90 general 23 maternity beds), at Riverton Hospital (63 general 18 frail ambulant beds) and at Frankton Lake County Hospital (17 beds). Gore is the satellite hospital for the eastern Southland region of the Board.

652. It is intended that the eighty year old Lake County Hospital at Frankton should eventually be closed and provision be made for some new general beds.

653. The Board maintains an 85 bed geriatric hospital (Lorne) at

Invercargill. Maternity hospitals are at Bluff (5 beds), Otautau (5 beds), Tuatapere (8), Winton (12), Lumsden (8), Queenstown (5), Tokanui (4), Wyndham (8), and Mataura (6). In addition there is a 23 bed maternity ward of Seddon Memorial Hospital, Gore, and the Dee Street Maternity Hospital (50 beds) at Invercargill.

654. By reason of the geographical extent of the Southland Hospital Board's District most of the above maternity units must continue in being. There is, however, a progressive tendency to concentrate upon the central facilities being developed at Kew Hospital with its immediate availability of consultant obstetrical, anaesthetic and resuscitation services, particularly in the event of any abnormality.

655. There are seven private hospitals in the district, four at Invercargill with 36 medical and surgical and 45 medical beds, one at Waikiwi (8 medical and 30 children's beds) one at Gore (8 medical beds) and one at Doubtful Sound (6 medical and surgical beds) which serves Manapouri Power Development Scheme. Five Old People's Homes run by religious and welfare bodies provide 90 home and 53 hospital beds, and three operated by private individuals provide a further 33 home beds.

CHAPTER VI: SUMMATION

656. The review of hospital and related services set out in the foregoing pages has been comprehensive without any attempt at a penetrating analysis. This was not possible within the limitations of time and space imposed. The statistics and other information given are as up-to-date as possible at the time of publication.

657. The historical summary has necessarily had to be confined essentially to a factual account of events. However, sufficient information has been furnished to disclose many of the factors which have contributed towards the present range and organisation of this country's hospital and associated activities.

658. The summary of present facilities reveals that hospital and related services cover the whole country, good roads, a network of air services and excellent communications making the most specialised medical attention readily available. The many and varied facets of public hospital activity clearly emerge, as do the wide differences in the role and scope of individual hospitals, according to their size. The extent of extra-mural services of various kinds and the indispensible contributions of the many advisory boards and committees are plainly portrayed. Problems of hospital finance, education and training of professional and technical staff and provision of adequate services to meet the demands of a growing population are made manifest.

659. The general trends, which this Department considers are likely to influence forward planning and policy making in future hospital provision, have been shown to include the obvious ones of population growth, projected shifts of population and age structure. Along with these are mentioned changes in morbidity and mortality trends, the rapid advance of what has been called the technological revolution and the growth of specialisation in all fields of medicine, with consequent radical alterations in concepts of its practice. In addition, attention has been drawn to the computer and its application to various facets of hospital administration and patient care; as well as advances in psychiatric knowledge, with the resultant narrowing of the gulf between the psychiatric hospital and the community that it serves and the bringing of psychiatry more closely into touch with general medicine. All these trends, together with the changing public attitude towards medical care and demand for hospital services, plus the rising cost to the State of providing such services, are factors which the Department suggests must be taken into account in attempting to frame future policies and plans. Other factors referred to as requiring consideration include the growing recognition of the need for greater integration of health and hospital services, the roles of private hospitals and voluntary organisations and changing attitudes to education and management in hospital services.

660. Against this background of extensive and rapid change there has been set forth, in Chapter IV, policies and plans covering the whole country. Conveniently, they are outlined, first, on a national basis and then in their application to individual Hospital Districts. The far-reaching nature of many of these plans and the extent to which they are inter-

locking are well established. Proposals involving a reduction in the number of Hospital Districts, changes in the role of smaller hospital units, transfers of departmental hospitals to Board control, greater integration of psychiatric and general hospital services and the handing over from the Department to Boards of other medical care responsibilities are all of major significance.

661. In the area of hospital planning and development, the important roles of the Department's Research and Planning Unit and the technical staff of the Ministry of Works emerge as does the value of advisory bodies such as the Hospital Works Committee and the Hospitals Advisory Council. The latter's responsibility to advise on the development of national and regional specialties is obviously an important one in medical planning. The growing problems of housing of the elderly and rehabilitation of the disabled and changing practices in respect of catering, laundry and central sterile supply services emphasise the need for careful planning in these areas. Educational and training policies for all the major categories of hospital workers clearly need close scrutiny and boldness in planning, whilst planning in the case of psychiatric and psychopaedic hospitals and services, it has been shown, calls for much thought and involves a willingness to accept change.

662. Stemming from the ferment of policy and planning formulation outlined in this paper, there will most certainly be many changes in traditional arrangements and practices within the hospital and related fields. It seems that none is likely to be more marked than those which would result from a closer integration of preventive and curative medicine, coupled with the wider use of para-medical workers under medical leadership. This integrated health service concept, which could be provided by a health centre closely associated with the local hospital, is briefly referred to in this paper. It seems bound to claim growing attention in this country, as it has done overseas. Indeed, as T. McKeown, Professor of Social Medicine, University of Birmingham,[50] comments, the main problems now confronting all countries are: the organisation of hospitals; the future of medical practice; the relationship between preventive and curative medicine; and the responsibilities of the teaching centre.

663. Whatever changes finally result from consideration of the policies and plans expounded in this paper, it is desirable that they should emerge as a consequence of informed discussion by interested citizens. The paper summarises in Appendix 1 the Department's assessment of the major long-term consequences of complete adoption of what has been set forth under the heading of policies and plans. These may find general acceptance. But, as was made clear in the Foreword, constructive comment from whatever quarter would be welcome.

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ANNEXURE : DENTAL HEALTH SERVICES

OBJECTIVES

1. The long-term objective of the Division is the prevension of dental and oral disease on a national scale.
The immediate objective is:

(a) Improvement in the standard of dental health of all children up to the age of 16 years by providing regular and systematic treatment at six-monthly intervals together with instruction in the principles of oral health.
(b) Reduction in the volume of dental and oral disease by education of the public in the principles of oral health.
(c) Encouragement of all other known measures which will prevent or reduce dental diseases.

FUNCTIONS

2. The Director of the Division of Dental Health is responsible to the Minister of Health, through the Director-General of Health, for the carrying out of the Government's policy and for advising the Minister on all dental matters.

3. The Division is composed of sixteen administrative units—namely, thirteen Dental Districts and three Schools for Dental Nurses, and the head of each represents the Director locally and is responsible for the efficiency of local administration. The Head Office of the Division of Dental Health directs and co-ordinates all dental activities of the Department and advises other Government Departments on dental problems. Specifically, it organises and directs the School Dental Service and administers the Social Security (Dental Benefits) Regulations. It also arranges the staffing and supervision of dental services in Mental Hospitals and administers dental legislation and the dental bursary scheme.

4. Over the years it has played a full part in the Colombo Plan and has also given assistance to overseas countries through WHO, the Special Commonwealth African Assistance Plan, and by special arrangements between Governments.

5. The Division is represented on the following bodies:

(1) The Dental Council of New Zealand.
(2) The Dental Committee of the Medical Research Council.
(3) The Dental Health Committee of the Board of Health.
(4) The Dental Benefits Central Advisory Committee.
(5) The Dental Committee of the New Zealand Standards Association.
(6) The Products Committee of the New Zealand Dental Association.
(7) The Commission on Public Health Services of the International Dental Federation.
(8) New Zealand Dental Association Committee on Dental Health.
(9) Fluoridation Sub-Committee of the Board of Health Local Authority Affairs Committee.
(10) Dental Technicians Board.

HISTORICAL BACKGROUND[1]

6. During the 1914–18 war the dental examination of young men entering the Armed Forces in New Zealand revealed that a large percentage of otherwise healthy recruits suffered from gross dental neglect. The serious nature of the situation prompted certain members within the dental profession to make a move to improve the general dental health of the population. In their wisdom these men saw, as their primary objective, the provision of a dental care plan for children.

7. The new service commenced in 1919 with the appointment of six qualified dental surgeons who were appointed to work in school dental clinics as members of the Education Department. As 95 percent of the 200,000 primary school children were, at that time, not receiving any form of regular dental attention it soon became obvious that the small number of staff would be quite inadequate to deal with the problem and that if an effective service was to be stabilised considerable increases in dental operators would be necessary. Any large recruitment from the ranks of private practice would, however, at the time have seriously interfered with the service available to the general public.

8. To meet this situation the First Director, Colonel T. A. (later Sir Thomas) Hunter, recommended to the Government, and the New Zealand Dental Association endorsed, a proposal to give selected young women a specialised two year course to enable them to carry out simple routine dental operations for primary school children.

9. The first group of trainees, 35 in number, were appointed and commenced training in 1921. At that stage the dental condition of the children was so poor that 121 extractions had to be done for every 100 fillings placed. Due to the educational efforts of generations of school dental nurses there has been a marked improvement in the public awareness of the importance of sound teeth and a healthy mouth. This has resulted in a present day extraction/filling ratio of 2.9/100.

10. The school dental clinic has now become an integral part of the primary school system, and systematic dental treatment and dental health education have become part of the primary school programme. In 1947 the Social Security Dental Benefits Regulations were introduced to allow treatment by Dental Surgeons to extend to the 16th birthday.

11. At first it was thought that this system would be operated on the existing pattern and that Government clinics would be established at secondary schools and factories and be staffed by salaried dental officers. Owing to the difficulties of obtaining sufficient staff at the time the New Zealand Dental Association agreed to assist by providing treatment on a "fee for service" basis for the post-primary section (above Form II). This has now established itself as being an efficient and effective method of providing treatment for this group.

PRESENT FACILITIES

12. The three Schools for Dental Nurses in Auckland, Wellington and Christchurch provide for an intake of 250 student dental nurses annually. Auckland and Christchurch can receive 75 each in March and Wellington two groups of 50 in September and March.

13. Unless the nurses can live at home they are required to be accommodated in departmental Hostels. At present the increased numbers are being accommodated in old-type clinics, some of which are not entirely

suitably located, and provision has therefore been made in the ten-year programme for further building.

14. The Student Dental Nurse course is concentrated into two years. The first year is divided between appropriate theoretical classes, practical pre-clinical work and chairside assisting. In the second year the time is mainly devoted to clinical work on pre- and primary-school patients, interspersed with lectures on Dental Health Education and Field Organisation and Records. In order to build up a higher patient group for training purposes the clinical work is being decentralised by the introduction of Section Clinics. These accommodate either 12 or 25 senior student nurses and the corresponding supervisory staff. They are established within primary or intermediate school grounds and are generally placed in the suburbs in order to take advantage of the newly established housing areas with their higher proportions of young children. These clinics have been established in Christchurch and in Auckland. Plans are under way for a similar system in Wellington.

15. In March 1969[2] there were 1,334 school dental nurses operating in the 1,267 treatment centres attached to the primary and intermediate schools throughout New Zealand. They are responsible for the treatment of the 568,119 pre-school and school children at present enrolled. Over 70 percent of these school children are treated within their own school grounds but some of the remainder have to travel long distances to the clinic. The school dental nurse is responsible for the dental health education of each patient and for treatment, including fillings and extractions. She is confined to certain well defined techniques and work outside her scope is referred to the private practitioner. This may either be an operation which would come within the dental benefit schedule and be paid out of the Social Security Dental Benefits Fund, or specialist work, payment for which is the responsibility of the parent. When school dental clinic patients leave the highest class treated at the clinic (usually Form II) they are invited, by way of an enrolment form, to continue routine treatment with the dentist of their choice. Provided the provisions of the regulations are met these patients remain eligible for treatment until their 16th birthday.

DENTAL HEALTH SURVEY[2]

16. A survey was carried out by the departmental Principal Dental Officer (Research) over the period 1962–64, to determine the state of dental fitness of the 15-to-21-year olds following the cessation of general dental benefits on the 16th birthday. The result of this survey shows that the dental caries attack has been controlled with a high level of effectiveness by the country's existing dental health programme.

17. After 16 years of age a mild decline in dental fitness is recorded, related to a lengthening of the intervals between appointments. It is interesting to note that at twenty-one the treatment periods were becoming more regular.

18. Compared with former surveys there has been a significant drop in the need for artificial dentures. Although early stages of periodontal disease were demonstrated, the prevalence was low and, what is more important, little change was seen in the progress of the disease from 15 through to 21 years. The report showed that 67 percent of males and 77 percent of females continue to obtain treatment at their own expense when dental benefits cease. This is very satisfactory.

19. The results of research into the prevention of dental decay show that its incidence can be greatly reduced. While tooth cleaning and correct diet must still remain an important facet of dental health it has been proved beyond doubt that the fluoridation of community water brings about positive and dramatic improvement in the quality of the teeth. Already over 60 percent of the New Zealand population served by a reticulated water supply are receiving the benefits of water fluoridation. An evaluation was made of the reduction in caries prevalence amongst Hastings[4] children during a period of ten years' fluoridation. It was shown that in permanent teeth of children aged 6, 7, 8, 9 and 10 years caries rates have been reduced by 84, 73, 67, 53 and 55 percent respectively. In the permanent teeth of children aged 11–16 years caries rates had been reduced by from 52–30 percent respectively. Caries rates in the deciduous teeth of children aged 5, 6 and 7 years had been reduced by 52, 50 and 36 percent respectively. From the practical point of view there are not only fewer cavities showing in this group but the cavities which do appear are generally smaller and less complicated to operate on. This is reflected in the larger number of patients a dental operator can control. School dental nurses have in many areas increased their patient groups by 50 percent and there has been a similar decrease in the cost of the individual patient's treatment under the Dental Benefits scheme. The encouraging picture should be increasingly evident in the child and adolescent population in the years immediately ahead.

20. Current research into the effects of other minerals on tooth structures may further enhance this already promising outlook. Dentistry has for many years looked for some substance which could be added to harmful foods to prevent damage to the outer surface of the teeth. Overseas studies being carried out on this at present could develop into worthwhile public dental health measures.

21. However, treatment will play a major part in the school dental nurse's work—at least in the foreseeable future. In the treatment field the changing role of hospital dental departments should allow the fuller development of specialist dental procedures and improve the facilities available for mentally and physically handkcapped children.

22. The changing pattern of dental equipment in general practice will lead to a periodic re-assessment of School Dental Service requirements. Ergonomic studies at present being carried out in school dental clinics show that the wooden chair, which has been a standard piece of equipment for forty years, should be replaced by a specially designed pump chair. This will allow the nurse to adopt better operating positions and will be more comfortable for the patient. It will also be necessary to re-design the operating stool and cabinet.

23. Manufacturers are developing automatic mixers, for amalgam and other fillings, which can no longer be considered as "gadgets". Their maintenance is being improved and they are producing fillings which, because of the consistency of the mix, last longer. Their use is especially appropriate in the School Dental Service because the school dental nurse has no dental attendant to hand-mix these fillings and has to do this job while still controlling her patient.

24. Although it is still generally accepted that the boiling of instruments is sufficient in general dental practice, thought may have to be given at some future date to the use of small autoclaves or some other method of

sterilisation. Fortunately, because of a general improvement in dental health, fewer extractions are being carried out by school dental nurses. In fact, so few permanent teeth have had to be extracted that this technique has now been dropped from the student dental nurse course.

25. Private practice has generally accepted that the use of high speed motors for operating on teeth are a necessity for the adolescent and adult patients. New designs of high speed handpieces are forecast. At the present stage of development provision has been made to place some form of high speed motor into intermediate dental clinics over the next ten years. This programme may have to be revised as new ideas develop.

26. The latest research into filling materials points to less exacting techniques being required to place them in the teeth. Other more conventional filling materials are improving in quality.

DENTAL AUXILIARIES

27. In its development of the school dental nurse system to augment the work of qualified dental surgeons New Zealand is almost half a century ahead of most other countries. At present there is a world-wide interest in ways and means of increasing dental manpower. In the developed countries the health education projects have increased the demand for treatment, especially in the middle and lower income groups. America and Australia are both investigating the problem to see how best it can be met by introducing auxiliary personnel.

28. On the other hand, the developing countries are showing a deterioration in the dental status of their people due to the impact of the more sophisticated diet being introduced as western civilisation advances. Although the demand is not great in these countries the need is recognised by their professional and political leaders. New Zealand has, over a number of years, given overseas assistance by sending detailed information on the training and use of the school dental nurse and by receiving investigators who have been able to do an "on the spot" assessment. This country trained the first group of Colombo Plan students in 1951 and from that time has accepted nurses from Ceylon, Hong Kong, Ghana, Indonesia, Sabah, Sarawak and Thailand. Further help has been given by the secondment of New Zealand staff for work in Ceylon, Sabah, Malaya, New Guinea, Brunei, Singapore, the Cook Islands, Thailand and Australia.

HOSPITAL DENTAL SERVICES[5]

29. Since hospital dental services were introduced in 1913 it has generally been accepted that they would provide treatment for those people who could not afford the fees charged by private practitioners. Over the years, however, individual Boards, acting independently, have tended to vary their policies in the direction of expanded out-patients' services.

30. In 1963 the subject of hospital dental services was referred to the Dental Health Committee of the Board of Health. This Committee indicated that all Hospital Boards throughout New Zealand should be required to observe a uniform policy. Broadly, this involved the Hospital Boards in the provision of dental services:

(a) As an essential part of the patient's hospital treatment.
(b) When treatment is not available from a dental surgeon in private practice or
(c) When needed by those people who are not able to assume full financial responsibility for their own dental treatment

The general nature of the recommendations contained in the report was to limit the availability of treatment for out-patients and to develop the scope and standard of dental care for in-patients. Emphasis was given to the provision of specialist services not available from private practitioners, including the treatment of physically and mentally handicapped children.

31. The report details the type of services which should be available in the four classes of hospitals and indicates the staff and facilities required for each class. It also makes provision, in towns where there are no private hospitals, for private dental practitioners to be appointed to operate on their own patients.

32. The Health Department is the central authority in which, by statute, responsibility is vested for the co-ordination, control, maintenance and supervision of all hospital services. The Dental Health Committee recommended that the administration at the national level should, therefore, be effected by the Department of Health assisted by the Hospitals Advisory Council through the Division of Hospitals and the Division of Dental Health. At the local level the administration is the responsibility of the Hospital Board and its appropriate officers.

PLANNING AND POLICY

33. The policy of the National Dental Service provides for the school dental nurse to treat pre-school, primary and intermediate school children from 2½ years to Form II in state, private and Maori schools. When the children leave the highest class treated at the school dental clinic the parents are then given the opportunity to enrol them with the dentists of their choice, under the General Dental Benefits Scheme. Provided the terms of the regulations are complied with the children are eligible for treatment until the 16th birthday. Specialist services such as orthodontics are not included and the cost of these is the responsibility of the parents.

34. The rapid increase in numbers of pre-school children, and the comparatively small numbers in the age groups from which student dental nurses were selected, led in previous years to the release of further clinic patients to general dental benefits. In some instances the highest class treated at the school dental clinic was as low as Standard 1.

35. In 1966 a Ten Year Plan was produced to ensure that sufficient school dental nurses were trained to meet the staffing requirements of the Service until 1975. In this it is envisaged that the present rate of training 250 nurses a year will provide sufficient staff to treat the classes up to Form II by 1971. The project figures also take into account the increase in school health of pre-school and school children. It is estimated that 1,400 nurses will be required and will be available by 1971 to meet these commitments. The plan also provides for increases in supervisory staff and an improvement in clinic equipment to bring it into line with latest developments in dentistry. It is subject to revision at two-yearly intervals.

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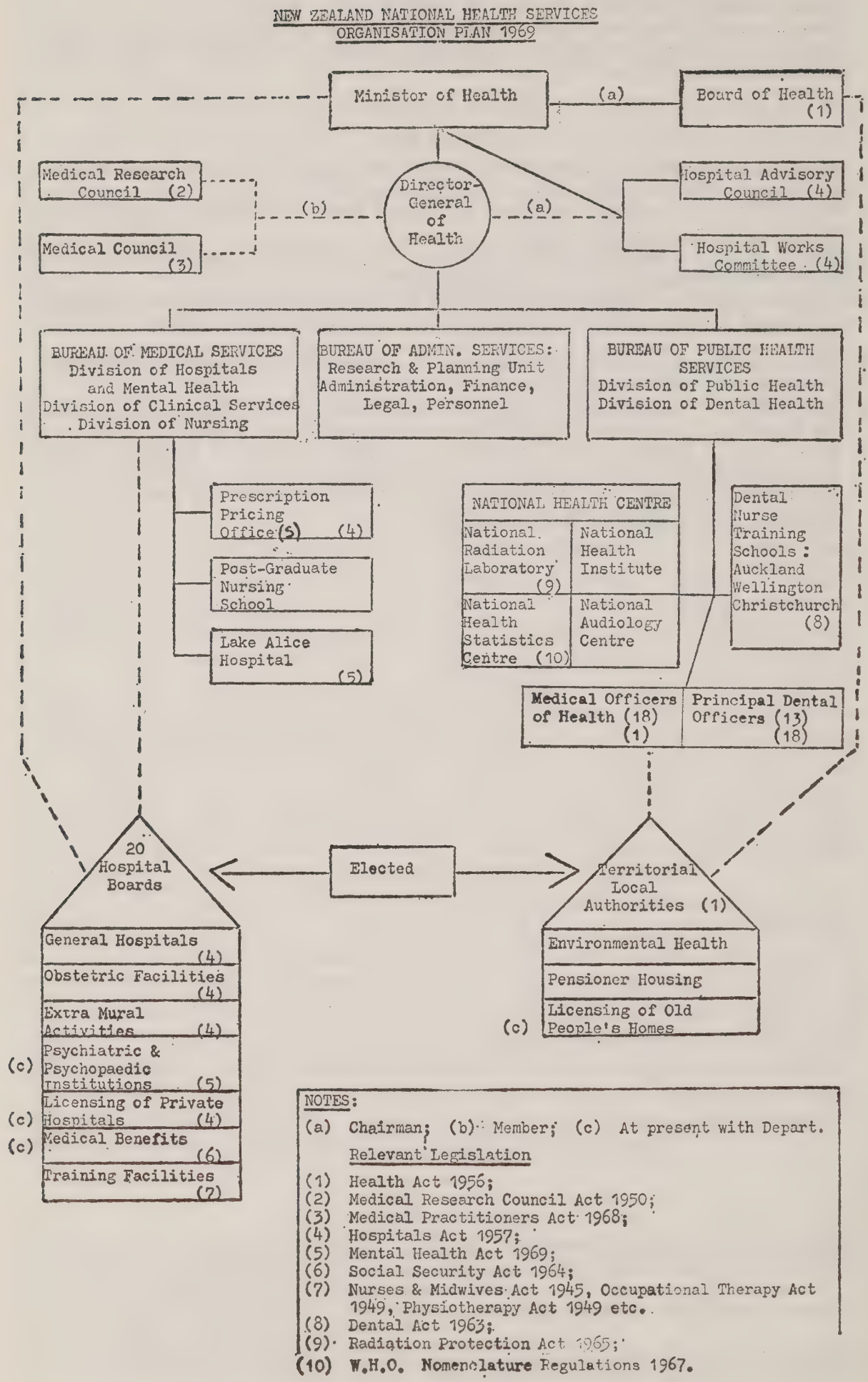
APPENDIX 1



NOTES:

(a) Chairman; (b) Member; (c) At present with Depart.

Relevant Legislation

(1) Health Act 1956;
(2) Medical Research Council Act 1950;
(3) Medical Practitioners Act 1968;
(4) Hospitals Act 1957;
(5) Mental Health Act 1969;
(6) Social Security Act 1964;
(7) Nurses & Midwives Act 1945, Occupational Therapy Act 1949, Physiotherapy Act 1949 etc.
(8) Dental Act 1963;
(9) Radiation Protection Act 1965;
(10) W.H.O. Nomenclature Regulations 1967.

APPENDIX 2

HOSPITAL BOARDS, ETC., AND INSTITUTIONS CONTROLLED AS AT 31.3.69

Hospital Board	Name of Institution	Available Beds			
		General	Maternity	Non-Hospital	Total
Northland	Whangarei	276	43	..	319
	Kawakawa	62	17	..	79
Mean Population	Kaitaia	91	23	..	114
year ended	Dargaville	78	..	..	78
31.3.69 — 94,280	Rawene	45	6	..	51
	Te Kopuru	21	12	..	33
	Potter Memorial Old People's Home	..	..	40	40
	Kaeo	23	5	..	28
	Eventide Lodge Old People's Home (Te Kopuru)	..	..	25	25
	Kaikohe Maternity	..	21	8	29
	Paparoa Maternity	..	8	..	8
	Kowhai Cottage Old People's Home, Whangarei	..	..	8	8
Auckland	Auckland	536	..	..	536
	Greenlane (Auckland)	478	..	..	478
Mean Population	Middlemore (Otahuhu)	635	68	..	703
year ended	Cornwall Geriatric (Auckland)	388	..	..	388
31.3.69 — 648,230	National Women's Maternity (Auckland)	161	210	..	371
	Wilson Home for Crippled Children, Auckland	60	..	..	60
	North Shore Maternity	12	48	..	60
	Civilian Rehabilitation Centre, Auckland	26	..	..	26
	Pukekohe Maternity	..	22	..	22
	Papakura Maternity	..	17	..	17
	Birkenhead Convalescent Hostel	..	..	15	15
	Eastern Bays Maternity	..	11	..	11
	Devonport Maternity	..	10	..	10
	Waitakere Maternity	..	45	..	45
	Warkworth Maternity	..	12	..	12
	Howick Maternity	..	8	..	8
	St Helens Maternity	17	76	..	93
Waikato	Waikato (Hamilton)	721	75	..	796
	Rotorua	262	64	..	326
Mean Population	Gardenholm Old People's Home (Rotorua)	..	..	56	56
year ended	Te Kuiti	69	20	..	89
31.3.69 — 279,650	Fairholm Old People's Home (Hamilton)	..	..	30	30
	Te Awamutu Maternity	..	27	..	27
	Cambridge Maternity	..	20	..	20
	Te Aroha Maternity	..	20	..	20
	Matamata Maternity	..	18	..	18
	Huntly Maternity	..	15	..	15
	Tokoroa Maternity	..	14	..	14
	Morrinsville Maternity	..	14	..	14
	Putaruru Maternity	..	13	..	13
	Otorohanga Maternity	..	12	..	12
	Taupo Maternity	..	20	..	20
	Riverholm Convalescent Home (Rotorua)	9	..	..	9
	Mangakino Maternity	..	7	..	7
	Raglan Maternity	..	4	..	4
	Turangi Maternity	..	12	..	12
	Queen Elizabeth	115	..	20	135
Thames	Thames	184	20	..	204
	Waihi	33	12	..	45
Mean Population	District Homes Old People's Home (Thames)	..	..	50	50
year ended	Coromandel	18	5	..	23
31.3.69 — 28,450	Paeroa Maternity	..	11	..	11
	Mercury Bay (Whitianga)	3	3	..	6
Tauranga	Tauranga	281	45	..	326
	Te Puke Maternity	..	15	..	15
Mean Population	Katikati Old People's Home	..	..	11	11
year ended					
31.3.69 — 50,840					

Appendix 2—Hospital Boa ds, Etc., and Institutions Controlled as at 31.3.69—*continued*

Hospital Board	Name of Institution	Available Beds			
		General	Maternity	Non-Hospital	Total
Bay of Plenty	Whakatane	143	28	..	171
	Murupara Maternity	..	8	..	8
Mean Population year ended 31.3.69 — 33,250	Kawerau Maternity	..	8	..	8
Opotiki	Opotiki	54	12	..	66
Mean Population year ended 31.3.69 — 6,960					
Taumarunui	Taumarunui	112	27	..	139
	Avonlea Old People's Home	..	..	12	12
Mean Population year ended 31.3.69 — 15,270					
Waiapu	Te Puia	30	14	..	44
Mean Population year ended 31.3.69 — 5,350					
Cook	Cook (Gisborne)	250	22	..	272
	Memorial Old People's Home (Gisborne)	..	..	63	63
Mean Population year ended 31.3.69 — 39,000	Morris Convalescent Home	18	..	..	18
	Lister Maternity (Gisborne)	..	10	..	10
Wairoa	Wairoa	96	22	13	131
Mean Population year ended 31.3.69 — 11,500					
Hawke's Bay	Napier	272	..	..	272
	Hastings Memorial	247	46	..	293
Mean Population year ended 31.3.69 — 92,130	St Marys Home (Napier)	32	..	..	32
	McHardy Maternity (Napier)	..	28	..	28
Waipawa	Waipukurau	89	12	16	117
	Pukeora Home for the Disabled (Waipukurau)	..	..	48	48
Mean Population year ended 31.3.69 — 13,860					
Dannevirke	Dannevirke	121	17	..	138
	Woodville Maternity	..	4	..	4
Mean Population year ended 31.3.69 — 13,120					
Taranaki	New Plymouth	239	..	2	241
	Westown (New Plymouth)	62	51	..	113
Mean Population year ended 31.3.69 — 92,030	Rangimarie Old People's Home (New Plymouth)	..	..	53	53
	Waitara Maternity	..	10	..	10
	Opunake Maternity	..	10	..	10
	Stratford	60	22	..	82
	Hawera	107	23	..	130
	Ngahuru Old People's Home (Hawera)	..	..	30	30
Wanganui	Wanganui	231	52	..	283
	Jubilee Hospital and Home (Wanganui)	96	..	..	96
Mean Population year ended 31.3.69 — 75,830	Taihape	42	12	..	54
	Waimarino (Raetihi)	22	10	..	32
	Marton Maternity	6	10	..	16
	Patea	50	10	..	60
Palmerston North	Palmerston North	424	63	..	487
	Awapuni	132	..	..	132
Mean Population year ended 31.3.69 — 108,940	Levin Maternity	..	22	..	22
	Feilding Maternity	..	20	..	20
	Otaki Maternity	..	10	..	10
	Foxton Maternity	..	5	..	5
	Horowhenua (Palmerston North)	50	..	..	50

Appendix 2—Hospital Boards, Etc., and Institutions Controlled as at 31.3.69—*continued*

Hospital Board	Name of Institution	Available Beds			
		General	Maternity	Non-Hospital	Total
Wairarapa	Masterton	152	30	..	182
	Greytown	18	..	56	74
Mean Population year ended 31.3.69 — 45,300	Pahiatua	29	12	..	41
	Panama Old People's Home, Masterton	..	..	8	8
	Featherston Maternity	..	8	..	8
	Carterton Maternity	..	7	..	7
	Eketahuna Maternity	..	5	..	5
	Martinborough Maternity	..	5	..	5
	Greytown Maternity	..	5	..	5
Wellington	Wellington	905	48	..	953
	Hutt (Lower Hutt)	389	77	..	466
Mean Population year ended 31.3.69 — 308,030	Silverstream	243	..	..	243
	Central Park Old People's Home (Wellington)	..	..	100	100
	Elderslea Maternity (Upper Hutt)	..	40	..	40
	Paraparaumu Maternity	..	15	..	15
	Kenepuru Maternity	..	47	..	47
	St Helens Maternity	..	40	..	40
Marlborough	Wairau (Blenheim)	178	..	..	178
	Amersfoote Old People's Home (Blenheim)	..	..	48	48
Mean Population year ended 31.3.69 — 27,420	Holmdale Maternity	..	30	..	30
	Picton	5	6	..	11
Nelson	Nelson	231	38	..	269
	Alexandra Old People's Home (Nelson)	..	..	40	40
Mean Population year ended 31.3.69 — 56–330	Motueka Maternity	..	12	..	12
	Takaka Maternity	..	7	..	7
	Murchison Maternity	..	6	..	6
	Collingwood Maternity	..	4	..	4
West Coast P.O. Box 387 Greymouth	Grey (Greymouth)	74	21	..	95
	Westland	76	11	..	87
	Pounamu Home (Hokitika)	..	..	15	15
	Whataroa Maternity	2	3	..	5
Mean Population year ended 31.3.69 — 35,450	Buller (Westport)	73	16	..	89
	Kynnersley Old People's Home (Westport)	..	..	27	27
	Karamea Maternity	1	2	..	3
	Reefton	33	11	14	58
	Tasman Old People's Home (Greymouth)	15	..	25	40
North Canterbury	Christchurch	427	..	..	427
	Burwood (Christchurch)	255	22	..	277
Mean Population year ended 31.3.69 — 309,590	Princess Margaret (Christchurch)	252	..	..	252
	Coronation (Christchurch)	137	..	8	145
	Jubilee Home (Christchurch)	46	..	42	88
	Huntsbury Children's Home (Christchurch)	..	..	32	32
	Kaikoura	19	10	..	29
	Essex Maternity (Christchurch)	..	27	..	27
	Rangiora Maternity	4	10	..	14
	Waikari	3	9	..	12
	Oxford	13	..	..	13
	Darfield Maternity	..	8	..	8
	Lincoln Maternity	..	7	..	7
	Ellesmere Maternity	2	5	..	7
	Kaiapoi Maternity	..	7	..	7
	Akaroa Maternity	3	4	..	7
	Cheviot Maternity	..	4	..	4
	Chatham Islands Maternity (Waitangi)	1	3	..	4
	Christchurch Women's	..	92	..	92
	Lyndhurst Home	..	..	22	22
Ashburton	Ashburton	130	21	..	151
	Methven Maternity (temporarily closed 3.10.68)	..	6	..	6
Mean Population year ended 31.3.69 — 24,530	Rakaia Maternity (temporarily closed)	..	..	..	..
	Tuarangi Home	63	..	41	104
South Canterbury	Timaru	221	36	..	257
	Waimate	64	12	..	76
Mean Population year ended 31.3.69 — 54,520	Talbot (Timaru)	78	..	..	78
	"The Grange" Old People's Homes (Timaru)	..	..	35	35
	Temuka Maternity	..	8	..	8
	Geraldine Maternity	..	8	..	8
	Fairlie Maternity	2	4	..	6
	Geraldine Geriatric	9	..	..	9

Appendix 2—Hospital Boards, Etc., and Institutions Controlled as at 31.3.69—*continued*

Hospital Board and Address	Name of Institution	Available Beds			
		General	Maternity	Non-Hospital	Total
Waitaki	Oamaru	141	15	..	156
	Victoria Old People's Home (Oamaru) ..	..	..	46	46
Mean Population year ended 31.3.69 — 23,620	Otematata Maternity	..	8	..	8
	Kurow Maternity (temporarily closed) ..	1	6	..	7
Otago	Dunedin	339	90	..	429
	Wakari (Dunedin)	236	..	..	236
Mean Population year ended 31.3.69 — 125,280	Parkside (Dunedin)	105	..	..	105
	Fulton Old People's Home (Dunedin) ..	..	..	60	60
	Mosgiel Maternity	..	17	..	17
	Roxburgh Maternity	4	8	..	12
	Tuapeka (Lawrence)	7	4	..	11
	Tapanui	7	3	..	10
	Palmerston Maternity	1	5	..	6
	Hill Jack	26	..	..	26
South Otago	Balclutha	113	21	..	134
	Milton	18	6	4	28
Mean Population year ended 31.3.69 — 17,490	Owaka	18	4	4	26
	Eventide Old People's Home (Kaitangata) ..	..	..	17	17
Vincent	Cromwell	28	10	7	45
	Dunstan (Clyde)	30	11	..	41
Mean Population year ended 31.3.69 — 8,610					
Maniototo	Ranfurly	19	8	..	27
Mean Population year ended 31.3.69 — 2,850					
Southland	Southland	280	..	..	280
	Seddon Memorial (Gore)	90	23	..	113
Mean Population year ended 31.3.69 — 111,260	Riverton	86	..	..	86
	Lorne (Invercargill)	85	..	..	85
	Dee Street Maternity (Invercargill) ..	..	50	..	50
	Lake County (Frankton)	17	..	..	17
	Winton Maternity	..	12	..	12
	Wyndham Maternity	..	8	..	8
	Lumsden Maternity	..	8	..	8
	Tuatapere Maternity	..	8	..	8
	Bluff Maternity	..	5	..	5
	Queenstown Maternity	..	5	..	5
	Otautau Maternity	..	5	..	5
	Tokanui Maternity	..	4	..	4
Total Mean Population as at 31.3.69 2,758,970	TOTALS ..	13,393	2,869	1,151	17,413

APPENDIX 3

DEPARTMENTAL INSTITUTIONS AS AT 31 MARCH 1969

	Hospital	Type of Hospital	Where Situated	Number of Available Beds
1.	Queen Elizabeth* ..	Rheumatic Diseases	Rotorua ..	135
2.	Oakley	Psychiatric ..	Auckland ..	1,005
3.	Kingseat	Psychiatric ..	Papakura ..	936
4.	Raventhorpe	Psychiatric ..	Near Papakura	347
5.	Tokanui	Psychiatric ..	Te Awamutu ..	880
6.	Lake Alice Security Unit	Psychiatric ..	Marton ..	57
6a.	Lake Alice Hospital ..	Psychiatric ..	Marton ..	295
7.	Porirua	Psychiatric ..	Wellington ..	1,119
8.	Ngawhatu	Psychiatric ..	Nelson ..	570
9.	Seaview	Psychiatric ..	Hokitika ..	422
10.	Sunnyside	Psychiatric ..	Christchurch ..	995
11.	Seacliff Hospital Group	Psychiatric ..	Dunedin	
	(a) Orokonui ..	..	Waitati ..	302 }
	(b) Seacliff	..	Seacliff ..	116 } 1,271
	(c) Cherry Farm ..	..	Waikouaiti ..	753 }
12.	Mangere	Psychopaedic ..	Papatoetoe ..	376
13.	Levin	Psychopaedic ..	Levin ..	671
	Otaki	Psychopaedic ..	Otaki ..	100
14.	Braemar	Psychopaedic ..	Nelson ..	223
15.	Templeton	Psychopaedic ..	Christchurch ..	530
16.	Queen Mary	Psychoneuroses ..	Hanmer ..	118
			TOTAL ..	.. 10,050

*Transferred on 1 October 1968 to the control of the Waikato Hospital Board.

APPENDIX 4

ACHIEVEMENTS OF HOSPITAL BOARDS—1957–1967

*P/A Patient Accommodation. C/S Clinical Services. O/S Other Services. S/A Staff Accommodation.

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
NORTHLAND HOSPITAL BOARD COMBINED TOTALS	..	..	$ 3,596,843	$ 23,132	$ 1,014,421	$ 380,874	$ 5,015,270
Whangarei Base Hospital							
Nursing Staff	108	1959	..	..	..	380,874	380,874
Site levelling, building removal	—	1959	..	..	26,558	..	26,558
Base Hospital	160 (G)	1962	1,846,320	..	..	..	1,846,320
Boilerhouse and Laundry	—	1964	..	..	512,980	..	512,980
Chapel	—	1964	..	..	24,294	..	24,294
Roading	—	1965	..	..	38,598	..	38,598
Bulk Store	—	1966	..	..	88,851	..	88,851
TOTALS	268	..	1,846,320	..	691,281	380,874	2,918,475
Kaitaia Hospital							
Extensions to Theatre, X-ray and Lab.	—	1959	..	23,132	..	..	23,132
Phase 1 plus Nurses' Beds	88 (G) 52	1966	1,143,207	..	..	..	1,143,207
Boilerhouse and boilers	—	1966	..	..	323,140	..	323,140
Children's Ward	20 (G)	1966	65,042	..	..	..	65,042
TOTALS	160	..	1,208,249	23,132	323,140	..	1,554,521
Kaikohe Hospital							
Maternity	21 (M)	1958	348,140	..	..	..	348,140
Kawakawa Hospital							
Maternity	20 (M)	1966	102,179	..	..	..	102,179
Kaeo Hospital							
Additions	6 (G)	1959	36,432	..	..	..	36,432
Te Kopuru Hospital							
Reconstruction	26 (G)	1961	45,448	..	..	..	45,448
Potter Memorial Home							
Alterations	6	1967	10,075	..	..	..	10,075

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
AUCKLAND HOSPITAL BOARD COMBINED TOTALS	1,954	..	$ 12282,195	$ 942,020	$ 2,078,301	$ 3,765,510	$ 19,068,026
Auckland Hospital			$	$	$	$	$
Refractory Block	8	1957	53,028	..	..	..	53,028
Alterations and additions to Ophthalmic Department Wallace Block ..	—	1958	..	24,212	..	..	24,212
Alterations, Stage 1, Temporary Casualty ..	—	1958	..	46,288	..	..	46,288
Supervoltage	—	1958	..	170,000	..	..	170,000
Administrative Offices ex Y.M.C.A. ..	..	1959	..	..	379,300	..	379,300
Ward 18 alterations	—	1960	24,498	..	..	..	24,498
Wallace Block, Central Laboratory ..	—	1960	..	129,466	..	..	129,466
Nurses' kitchen and dining room extensions ..	—	1960	..	..	72,900	..	72,900
Costley Block alterations	—	1962	48,962	..	..	..	48,962
Grafton Road access	—	1962	..	..	29,391	..	29,391
Temporary linen room	—	1962	..	..	24,400	..	24,400
Temporary Emergency and Accident Department	—	1963	..	129,106	..	..	129,106
Garages	—	1963	..	..	41,578	..	41,578
Workshops	—	1963	..	..	114,856	..	114,856
Roading and services	—	1965	..	..	53,146	..	53,146
Resident Medical Officers' quarters ..	14	1966	..	..	..	107,606	107,606
Board Room suite	—	1966	..	..	39,186	..	39,186
Wallace Block lifts	—	1966	224,162	..	..	..	224,162
Temporary Occupational Therapy ..	—	1967	..	57,980	..	..	57,980
Princess Mary Access Road	—	1967	..	..	31,712	..	31,712
TOTALS	22	..	350,650	557,052	786,469	107,606	1,801,777

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Green Lane							
X-ray Department extensions	—	1959	..	61,544	..	..	61,544
Ward alterations	6 (G)	1960	26,748	..	..	..	26,748
Dispensary	—	1962	..	30,964	..	..	30,964
Convert old boilerhouse to workshops ..	—	1963	..	..	43,860	..	43,860
Laboratory Additions	—	1963	..	33,766	..	..	33,766
Boilerhouse and Boilers	—	1964	..	..	450,000	..	450,000
New Sewer Line..	—	1964	..	..	31,852	..	31,852
Boilerhouse, Emergency Standby Plant Isolation	—	1964	..	..	22,674	..	22,674
Roading and tunnel	—	1965	..	..	41,082	..	41,082
Diversion of Services	—	1965	..	..	27,726	..	27,726
Nurses' Home	435	1966	..	..	..	2,073,732	2,073,732
Parking and Services	—	1966	..	..	34,754	..	34,754
Steam services upgrading, Stage 2 ..	—	1966	..	..	70,262	..	70,262
Electrical services upgrading, Stage 2 ..	—	1966	..	..	27,830	..	27,830
Stage 1	—	1967	619,025	..	..		619,025
Stage 2 development	—	..	..	..	97,092	..	97,092
TOTALS	441	..	645,773	126,274	847,132	2,073,732	3,692,911
National Women's Obstetrical and Gynaecological							
Ward alterations	18 (M)	1958	21,380	..	..	..	21,380
N.W. Hospital	282 M)	1965	4,267,790	..	..	..	4,267,790
Isolation	28 (M)	1965	333,505	..	..	..	333,505
Cytology Unit	—	1967	..	74,632	..	..	74,632
TOTALS	348	..	4,622,675	74,632	..	..	4,697,307

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Middlemore							
Maternity Hospital	60 (M)	1961	703,118	..	..	..	703,118
Nurses' Home	123	1961	..	..	..	361,928	361,928
Kitchen alterations	—	1964	..	..	118,216	..	118,216
Nurses' Home	214	1965	..	..	..	1,024,096	1,024,096
Animal house	—	1965	..	..	39,904	..	39,904
Overall site development	—	1965	..	..	31,604	..	31,604
Acute 1 and 2	306 (G)	1966	3,769,630	..	..	..	3,769,630
Boilerhouse	—	1966	..	..	203,606	..	203,606
Staff accommodation	10	1966	..	..	..	108,344	108,344
Temporary Wards	130 (G)	1967	109,090	..	..	..	109,090
Plastic Unit	—	1967	..	164,182	..	..	164,182
Pilot Isolation	—	1967	29,531	..	..	..	29,531
TOTALS	843	..	4,611,369	164,182	393,330	1,494,368	6,663,249
Cornwall Hospital							
Alteration, Room 30	—	1958	21,834				21,834
Labour suite	—	1959	..	20,180	..	..	20,180
TOTALS	..	..	21,834	20,180	..	..	42,014
Otara Paraplegic, Otahuhu							
TOTALS	30 (G)	1958	142,290	..	..	..	142,290
Wilson Home							
Chapel	—	1966	..	..	51,070	..	51,070
Staff accommodation	—	..	..	..	..	20,742	20,742
TOTALS	..	..	..	..	51,070	20,742	71,812
Warkworth—Hospital Additions							
TOTALS	15	1965	..	..	..	69,062	69,062
Papakura—Maternity Extensions							
TOTALS	5 (M)	1960	35,640	..	..	..	35,640

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Waitakere—Maternity Hospital and Staff							
Totals	135	1964	1,113,406	..	..	..	1,113,406
North Shore							
Maternity Hospital and Staff	74	1958	680,468	..	..	..	680,468
Alterations and additions	4	1965	58,090	..	..	..	58,090
TOTALS	78	..	738,558	..	..	..	738,558
WAIKATO HOSPITAL BOARD							
COMBINED TOTALS	788	..	$ 4,796,264	$ 663,592	$ 2,185,791	$ 115,626	$ 7,761,273
Waikato Hospital							
New Operating Theatres	—	1958	..	321,656	..	..	321,656
Fairholm extensions	15 (G)	1958	38,904	..	..	..	38,904
Bulk store	—	1959	..	..	29,976	..	29,976
Convert Ward 10 to Children's Ward ..	30 (G)	1960	21,800	..	..	..	21,800
New laundry	—	1960	..	..	255,704	..	255,704
"Lindisfarne" medical staff	14	1960	..	..	..	47,850	47,850
Incinerator and building	—	1962	..	..	26,366	..	26,366
Nurses' Home	150	1963			704,296	..	704,296
Fairholm additions	32 (G)	1963	159,222	..	..	..	159,222
Ward Block	200 (G)	1964	1,125,842	..	..	..	1,125,842
Convert laundry to store	—	1964	..	..	74,408	..	74,408
Garages	—	1964	..	..	27,414	..	27,414
Mortuary	—	1964	..	..	39,328	..	39,328
Kitchen, Stage 1	—	1964	..	..	52,438	..	52,438
Workshops	—	1964	..	..	108,094	..	108,094
Water storage	—	1965	..	..	31,634	..	31,634
Kitchen, Stage 2 improvements	—	1965	..	..	33,434	..	33,434
Supervoltage Unit	—	1966	..	291,085	..	..	291,085
Workshops, Stage 2	—	1967	..	..	69,500	..	69,500
Kitchen, Stage 2 extensions	—	1967	..	..	152,893	..	152,893
Temporary Laboratory	—	1967	..	50,851	..	..	50,851
TOTALS	441	..	1,345,768	663,592	1,605,485	47,850	3,662,695

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Rotorua Hospital							
Ward Block	90 (G)	1957	989,306	..	..	..	989,306
Out-patients	40 (G)	1963	483,634	..	..	..	483,634
Boilerhouse	—	1967	..	..	271,184	..	271,184
Maternity Block	40 (M)	1967	693,451	..	..	..	693,451
Laundry alterations	—	1967	..	..	66,184	..	66,184
TOTALS	170	..	2,166,391	..	337,368	..	2,503,759
Te Kuiti Hospital							
Alterations, Men's and Children's Wards ..	—	1958	26,442	..	..	..	26,442
Stage 1 and 2 boilerhouse, boilers, kitchens, stores, etc.	6	1966	..	..	242,938	..	242,938
TOTALS	6	..	26,442	..	242,938	..	269,380
Te Awamutu—Maternity Hospital ..							
TOTALS	27 (M) 35 (Staff)	1957	354,940	..	..	..	354,940
Taupo—Maternity additions							
TOTALS	8	1967	122,930				122,930
Te Aroha—Maternity Hospital and Staff							
TOTALS	20 (M) 22	1961	257,802	..	..	..	257,802
Cambridge—Maternity Hospital and Staff							
TOTALS	20 (M) 28	1963	279,042	..	..	..	279,042
Huntly—Maternity additions							
TOTALS	2 (M)	1964	64,666	..	..	..	64,666

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Matamata							
Nurses' accommodation	5	1960				45,000	45,000
Alterations	—	1967	60,087	..	..	..	60,087
TOTALS	5	..	60,087	..	..	45,000	105,087
Morrinsville							
Nurses' Home extensions	6	1958	..	..	..	22,776	22,776
Alterations and improvements	−2	1967	89,714	..	..	..	89,714
TOTALS	4	..	89,714	..	..	22,776	112,490
Benneydale—Maternity, purchase and convert house (now at Te Kuiti)							
TOTAL	—	1959	28,482	..	..	..	28,482
THAMES HOSPITAL BOARD							
COMBINED TOTALS	212	..	$ 1,677,146	$ ..	$ 356,530	$ ..	$ 2,033,676
Thames Hospital							
Ward, Maternity Unit—2–30 wards ..	60 (M)	1957	572,098	..	..	..	572,098
Boilerhouse and laundry..	—	1959	..	..	317,752	..	317,752
Ward and Theatre Block	118 (G)	1964	988,560	..	..	..	988,560
TOTALS	178	..	1,560,658	..	317,752	..	1,878,410
Waihi Hospital — Reconstruction, replace boiler and boilerhouse, workshops block							
TOTALS	—	1965	..	..	38,778	..	38,778
Paeroa Maternity—Additions and alterations							
TOTALS	—	1964	34,600	..	..	..	34,600
Coromandel—Heating							
TOTALS	..	1962	24,688	..	..	..	24,688

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Tararu Home							
Additions	15 (G)	1959	34,386	..	..	..	34,386
Extensions, Ward 6	19 (G)	1964	22,814	..	..	..	22,814
TOTALS	34	..	57,200	..	..	..	57,200
TAURANGA HOSPITAL BOARD COMBINED TOTALS	294	..	$ 1,941,035	$ ..	$ 557,254	$ 848,789	$ 3,347,078
Tauranga Hospital							
Remodelling Wards 1 and 2	—	1958	37,512	..	..	..	37,512
Nurses' Home	75	1959	..	..	..	422,046	422,046
Light Construction Ward	30 (G)	1960	79,960	..	..	..	79,960
Maternity Annex additions	16 (M)	1962	141,708	..	..	..	141,708
Laundry	—	1964	..	..	244,778	..	244,788
Stage 1	90 (G)	1964	1,681,855	..	..	..	1,681,855
Boilerhouse	—	1967	..	..	246,119	..	246,119
Roading	—	1967	..	..	66,357	..	66,357
Nurses and Staff	83	1967	..	..	..	426,743	426,743
TOTALS	294	..	1,941,035	..	557,254	848,789	3,347,078
BAY OF PLENTY HOSPITAL BOARD COMBINED TOTALS	172	..	$ 749,636	$ 66,821	$ 498,872	$ 545,934	$ 1,861,263
Whakatane Hospital							
Nurses' Home additions	37	1957	..	..	..	151,080	151,080
Extensions to Children's Ward	23	1957	79,652	..	..	..	79,652
Tunnels, Calorifier Room, Laboratory	—	1958	..	45,379	..	..	45,379
Boilerhouse and laundry	—	1959	..	..	288,544	..	288,544
Water supply and drainage	—	1961	..	..	46,400	..	46,400
Convert old laundry into store	—	1961	..	..	24,280	..	24,280
Medical Staff flats	—	1962	..	..	..	17,230	17,230
Kitchen	—	1964	..	..	139,648	..	139,648
Stage 1	60 (G)	1964	477,624	..	..	..	477,624
Nurses' Home	44	1964	..	..	..	377,624	377,624
Enlarge and renovate X-ray Department	—	1964	..	21,442	..	..	21,442
TOTALS	164	..	557,276	66,821	498,872	545,934	1,668,903

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Kawerau Maternity							
TOTAL	8	1967	192,360	..	..	..	192,360
OPOTIKI HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	37	..	21,470	..	107,432	34,208	163,110
Opotiki Hospital							
Children's Ward	22 (G)	1959	21,470	..	..	..	21,470
Domestic Staff	15	1962	..	..	..	34,208	34,208
Administration additions	—	1962	..	..	52,546	..	52,546
Steam services	—	1964	..	..	54,886	..	54,886
TOTALS	37	..	21,470	..	107,432	34,208	163,110
TAUMARUNUI HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	137	..	579,537	40,383	146,602	94,248	860,770
Taumarunui Hospital							
Ward Block	22 (G)	1958	94,930	..	..	..	94,930
Boilerhouse and boilers	..	1959	..	..	146,602	..	146,602
Ward	30 (G)	1961	102,572	..	..	..	102,572
Nurses' Home	25	1964	..	..	..	94,248	94,248
Ward	60 (G)	1966	382,035	..	..	..	382,035
Convert Ward to Clinical Services.. ..	—	1966	..	40,383	..	..	40,383
TOTALS	137	..	579,537	40,383	146,602	94,248	860,770
WAIPU HOSPITAL BOARD ..			$	$	$	$	$
COMBINED TOTALS	30	..	128,930	..	135,460	68,268	332,658
Te Puia Hospital							
Nurses' Home	12	1959	..	..	..	68,268	68,268
Maternity Annex	18 (M)	1959	85,612	..	..	..	85,612
Boilerhouse and laundry..	—	1960	..	..	39,664	..	39,664
Heating services	—	1960	43,318	..	..	..	43,318
Mechanical services	—	1960	..	..	30,688	..	30,688
Water supply	—	1961	..	..	44,108	..	44,108
Sewer reticulation	—	1966	..	..	21,000	..	21,000
TOTALS	30	..	128,930	..	135,460	68,268	332,658

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
COOK HOSPITAL BOARD							
COMBINED TOTALS	128	..	325,114	70,612	1,077,086	389,434	1,862,246
Gisborne Hospital							
Nurses' Home additions No. 2	68	1957	..	..	..	389,434	389,434
Slip remedial measures	—	1958	..	..	38,268	..	38,268
Convalescent Home	16 (G)	1960	75,532	..	..	..	75,532
Alterations to Theatre	—	1960	..	48,644	..	..	48,644
New boiler and installation	—	1961	..	..	54,500	..	54,500
Isolation Block	24 (G)	1962	102,270	..	..	..	102,270
Standby generator and building	—	1962	..	..	30,708	..	30,708
Pathology	—	1963	..	21,968	..	..	21,968
Memorial Home additions	20 (G)	1963	118,012	..	..	..	118,012
Kitchen and Cafeteria	—	1965	..	..	147,854	..	147,854
Heating Ward 6	—	1965	29,300	..	..	..	29,300
Boilerhouse and laundry..	—	1966	..	..	668,130	..	668,130
Boiler and laundry equipment	—	1966	..	..	116,568	..	116,568
TOTALS	128	..	325,114	70,612	1,056,028	389,434	1,841,188
Tolaga Bay Hospitals — Extensions kitchen facilities							
TOTALS	—	1958	..	..	21,058	..	21,058
WAIROA HOSPITAL BOARD							
COMBINED TOTALS	100	..	$ 559,804	$ ..	$ 23,286	$ 194,486	$ 777,576
Wairoa Hospital							
Ward and Theatre Block	34 (G) 22 (M)	1961	559,804	..	..	..	559,804
Nurses' Home additions	44	1965	..	..	..	194,486	194,486
Roading	—	1965	..	..	23,286	..	23,286
TOTALS	100	..	559,804	..	23,286	194,486	777,576

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
HAWKE'S BAY HOSPITAL BOARD COMBINED TOTALS	238	..	$ 1,490,570	..	$ 548,548	$ 468,660	$ 2,507,778
Napier Hospital							
Central linen room	—	1962	..	..	23,166	..	23,166
Soiled linen room, etc.	—	1962	..	..	23,652	..	23,652
Kitchen alterations	—	1963	..	..	29,468	..	29,468
Purchase and instal new boilers	—	1968	..	..	69,560	..	69,560
TOTALS	—	..	..	..	145,846	..	145,846
Hastings Hospital							
New Medical Ward	16 (G)	1959	36,322	..	..	..	36,322
Boilerhouse	—	1959	..	..	56,342	..	56,342
Tutorial Block	—	1959	..	..	..	49,200	49,200
Ward Block	122 (G)	1961	1,283,900	..	..	..	1,283,900
Nurses' Block	85	1961	..	..	..	419,460	419,460
Store and Mortuary	—	1961	..	..	122,248	..	122,248
Nurses' kitchen	—	1964	..	..	132,286	..	132,286
Ward 2 improvements	—	1964	32,686	..	..	..	32,686
Roading Phase 1, drainage, layout, road lighting	—	1964	..	..	46,066	..	46,066
Workshops	—	1965	..	..	24,568	..	24,568
Roading	—	1966	..	..	21,192	..	21,192
Psychiatric Unit	15	1967	137,662	..	..	..	137,662
TOTALS	238	..	1,490,570	..	402,702	468,660	2,361,932
WAIPAWA HOSPITAL BOARD COMBINED TOTALS	135	..	$ 640,780	$ 69,700	$ 316,976	$ ..	$ 1,027,456
Waipukurau Hospital							
Engineering Services	—	1958	..	..	44,690	..	44,690
Additions to Administrative Block ..	—	1961	..	..	36,410	..	36,410
Boilerhouse and laundry	—	1964	..	..	235,876	..	235,876
Ward	62 (G)	1965	376,576	..	..	..	376,576
Theatre improvements	—	1965	..	69,700	..	..	69,700
TOTALS	62	..	376,576	69,700	316,976	..	763,252

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Raymond Maternity—Additions							
TOTAL	2 (M)	1967	29,142	..	..	..	29,142
Pukeora Home							
Additions	41	1958	51,918	..	..	..	51,918
Rebuilding, Phase 1	30	1967	183,144	..	..	..	183,144
TOTALS	71	..	235,062	..	..	..	235,062
DANNEVIRKE HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	—	..	..	302,000	59,134	..	361,134
Dannevirke Hospital							
Nurses' change-rooms. Rebuild portion of Hospital: Stage 1, Clinical	—	1958	..	..	30,016	..	30,016
Alterations to laundry boilerhouse ..	—	1961	..	..	29,118	..	29,118
Clinical Services Block	—	1961	..	302,000	..	..	302,000
TOTALS	—	..	..	302,000	59,134	..	361,134
WAIRARAPA HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	130	..	822,200	43,064	621,696	102,980	1,589,940
Masterton Hospital							
Maternity Ward additions	8 (M)	1957	63,490	..	..	..	63,490
Staff quarters	24	1958	..	..	..	59,414	59,414
Boilerhouse and steam-service trench ..	—	1959	..	..	22,210	..	22,210
Boilerhouse and boilers—steam heating ..	—	1962	..	..	303,344	..	303,344
Ward Block	62 (G)	1963	539,790	..	..	..	539,790
New laundry	—	1963	..	..	206,936	..	206,936
Tutorial Block	—	1964	..	..	..	43,566	43,566
X-ray additions	—	1966	..	43,064	..	..	43,064
TOTALS	94	..	603,280	43,064	532,490	102,980	1,281,814
Eketahuna—Maternity Hospital and Staff							
TOTALS	10	1960	82,290	..	..	..	82,290

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Pahiatua—Ward replacement, Stage 1							
TOTALS	11 (G)	1965	30,170	..	..	..	30,170
Martinborough—Maternity and Staff							
TOTALS	10	1959	84,314	..	..	..	84,314
Greytown							
Maternity Ward	5 (M)	1958	22,146	..	..	..	22,146
Staff baths and tennis courts	—	1958	..	..	22,200	..	22,200
Kitchen	—	1960	..	..	67,006	..	67,006
TOTALS	5	..	22,146	..	89,206	..	111,352
TARANAKI HOSPITAL BOARD COMBINED TOTALS	219	..	$ 920,646	$ 37,488	$ 589,957	$ 449,702	$ 1,997,793
New Plymouth Hospital							
Electrical reticulation	—	1960	..	..	21,894	..	21,894
Ward reconstruction	—	1961	76,032	..	..	..	76,032
Board Room and X-ray additions ..	—	1963	..	37,488	..	..	37,488
Cafeteria and Splint Department fire damage	—	1965	..	..	41,256	..	41,256
Boilerhouse additions	—	..	..	..	98,308	..	98,308
TOTALS	—	..	76,032	37,488	161,458	..	274,978
Westown Hospital							
Maternity	42 (M)	1957	442,768	..	..	..	442,768
Nurses' Home	104	1957	..	..	..	449,702	449,702
Underground service-ducts	—	1957	..	..	47,410	..	47,410
General Hospital	60 (G)	1958	221,178	..	..	..	221,178
Boilerhouse and boilers	—	1958	..	..	79,088	..	79,088
Electrical reticulation	—	1959	..	..	30,312	..	30,312
Central Block	13 (M)	1959	180,668	..	..	..	180,668
Laundry	—	1960	..	..	188,496	..	188,496
Chapel	—	1965	..	..	55,836	..	55,836
Site Development Stage 2	—	1966	..	..	27,357	..	27,357
TOTALS	219	..	844,614	..	428,499	449,702	1,722,815

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
STRATFORD HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	66	..	182,458	..	152,126	105,940	..
Stratford Hospital							
Nurses' Home additions	12	1962	..	..	..	20,228	20,228
Central linen room	—	1962	..	..	35,984	..	35,984
Domestic Block	24	1967	..	..	..	85,712	85,712
Boilerhouse	—	1967	..	..	116,142	..	116,142
Ward Block A	30 (G)	1967	182,458	..		..	182,458
TOTALS	66		182,458	..	152,126	105,940	440,524
HAWERA HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	—	..	..	97,058	320,156	..	417,214
Hawera Hospital							
Conversion Ward 1 to Out-patients ..	—	1957	..	70,886	..	..	70,886
Theatre Block extension	—	1959	..	26,172	..	..	26,172
Boilerhouse and laundry	—	1962	..	..	253,466	..	253,466
Steam reticulation	—	1965	..	..	66,690	..	66,690
TOTALS	..	..	..	97,058	320,156	..	417,214
PATEA HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	8	..	65,854	..	26,770	..	92,624
Patea Hospital							
Maternity Annex	8 (M)	1958	65,854	..	..	..	65,854
Steam-heating services installation ..	—	1958	..	..	26,770	..	26,770
TOTALS	8	..	65,854	..	26,770	..	92,624
WANGANUI HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	176	..	1,130,074	..	226,026	544,202	1,940,302
Wanganui Hospital							
Nurses' Home	142	1962	..	..	..	544,202	544,202
Theatre and Ward	—	1963	980,964	..	..	..	980,964
Nurses' kitchen and dining room	—	1963	..	..	172,982	..	172,982
Boilerhouse additions	—	1966	..	..	93,044	..	93,044
TOTALS	142	..	980,964	..	266,026	544,202	1,791,192

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Jubilee Old Peoples' Home							
TOTALS	30 (G)	1962	97,756	..	..	..	97,756
Marton General Hospital							
TOTALS	4 (G)	1960	21,024	..	..	..	21,024
Taihape—Additions and alterations: Children's and Men's Wards							
TOTALS	—	1967	30,330	..	..	..	30,330
PALMERSTON NTH HOSPITAL BOARD COMBINED TOTALS	209	..	$ 953,041	$ 73,510	$ 450,124	$ 163,184	$ 1,639,859
Palmerston North Hospital							
Centenary Block Maternity	40 (M)	1957	153,750	..	..	..	153,750
Supervoltage	—	1959	..	40,832	..	..	40,832
Kitchen additions	—	1959	..	..	13,560	..	13,560
Laundry additions	—	1960	..	..	23,840	..	23,840
Nurses' laundry and cafeteria	—	1961	..	..	21,002	..	21,002
Kitchen additions, Stage 2	—	1961	..	..	63,962	..	63,962
Medical Staff accommodation	4 (units)	1962	..	..	..	31,356	31,356
Theatre additions	—	1963	..	32,678	..	..	32,678
Maternity Block extensions	40 (M)	1963	288,928	..	..	..	288,928
Staff Medical Block	—	1964	..	..	..	41,260	41,260
Bulk store	—	1965	..	..	74,868	..	74,868
Additions, Nurses' kitchen	—	1966	..	..	21,924	..	21,924
TOTALS	84		442,678	73,510	219,156	72,616	807,960
Awapuni Old Peoples' Home—Extensions	46 (G)	1959	86,470	..	..	..	86,470

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Horowhenua Hospital, Levin							
Stage 1, Out-patients, Administrative, Geriatric	50 (G)	1967	401,915	..	..	..	401,915
Nursing Staff accommodation	23	1967	..	..	..	90,568	90,568
Roading and underground services ..	—	1967	..	..	33,225	..	33,225
Boilerhouse plant	—	1967	..	..	41,332	..	41,332
Boilerhouse	—	1967	..	..	156,411	..	156,411
TOTALS	73	..	401,915	..	230,968	90,568	723,451
Levin							
Maternity additions							
TOTALS	6 (M)	1961	21,978	..	..	..	21,978
WELLINGTON HOSPITAL BOARD COMBINED TOTALS	772	..	$ 5,021,169	$ 450,448	$ 1,436,579	$ 1,805,322	$ 8,713,518
Casualty	—	1960	..	252,080	..	..	252,080
Renew roof, No. 1 Nurses' Home ..	—	1960	..	..	..	43,012	43,012
Ward lifts 1 and 2, Administration ..	—	1961	43,278	..	..	..	43,278
Nurses' Home No. 3	235	1962	..	..	..	765,150	765,150
Cobalt Therapy Unit	—	1963	..	151,728	..	..	151,728
Medical Officers' accommodation ..	4 (units)	1963	..	..	..	59,354	59,354
Life replacement, Ward 5	—	1964	65,768	..	..	..	65,768
Nurses' Chapel	—	1965	..	..	57,230	..	57,230
Seddon Wing	167	1965	1,945,879	..	..	..	1,945,879
Kitchen alterations and laundry	—	1966	..	..	1,042,440	..	1,042,440
Electrical Centre	—	1967	..	..	34,577	..	34,577
Nurses' Home additions, Cafeteria, and Recreation Hall	40	1967	..	..	..	281,640	281,640
Dispensary additions	—	1967	..	46,640	..	..	46,640
TOTALS	446	..	2,054,925	450,448	1,134,247	1,149,156	4,788,776
Lower Hutt							
Boilerhouse additions	—	1966	..	..	302,332	..	302,332
Maternity Wing	60	1967	1,082,140	..	..	..	1,082,140
Nurses' Home extensions	100	1967	..	..	..	656,166	656,166
TOTALS	160	..	1,082,140	..	302,332	656,166	2,040,638

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Te Maru Maternity—Purchase							
TOTALS	—	1959	20,150	..	..	..	20,150
Paraparaumu Maternity							
TOTALS	15 (M)	1958	259,404	..	..	..	259,404
Upper Hutt—Maternity and Nurses' Accommodation							
TOTALS	40 (M) 31	1961	597,750	..	..	..	597,750
Silverstream Sprinkler system							
TOTALS	—	1961	24,742	..	..	..	24,742
Porirua—Kenepuru Maternity, roading, site works and Nurses' Home							
TOTALS	43 (M) 37	1966	982,058	..	..	..	982,058
NELSON HOSPITAL COMBINED TOTALS	423	..	$ 1,537,124	$ ..	$ 377,672	$ 958,348	$ 2,873,144
Nelson Hospital							
Temporary Ward accommodation ..	20 (G)	1957	26,280	..	..	..	26,280
Whakatu Lodge Nurses' Home, Stage 1 ..	33	1958	..	..	..	31,202	31,202
Whakatu Lodge Nurses' Home, Stage 2 ..	20	1959	..	..	..	26,280	26,280
Nurses' Home	155	1961	..	..	..	900,866	900,866
Ward	146 (G)	1963	1,329,688	..	..	..	1,329,688
Boilerhouse	—	1963	..	..	309,359	..	309,359
Chapel	—	1965	..	..	27,904	..	27,904
Steam services	—	1966	..	..	40,409	..	40,409
Convert Ward 6 to Maternity	39 (M)	1966	148,556	..	..	..	148,556
Recovery Ward	10	1968	32,600	..	..	..	32,600
TOTALS	423	..	1,537,124	..	377,672	958,348	2,873,144

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
BULLER HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	128	..	612,872	..	111,308	84,433	808,613
Buller Hospital							
Boilerhouse	—	1959	..	..	90,526	..	90,526
Electrical reticulation	—	1961	..	..	20,782	..	20,782
Maternity Annex	20 (M)	1962	174,440	..	..	..	174,440
Nurses' Home extension	20	1962	..	..	..	84,433	84,433
Two Wards and temporary kitchen ..	60	1966	247,750	..	..	..	247,750
TOTALS	100	..	422,190	..	111,308	84,433	617,931
Karamea—Maternity							
TOTALS	3 (M)	1965	34,988	..	..	..	34,988
Kynnersley Old Peoples' Home							
Ward							
TOTALS	25 (G)	1966	155,694	..	..	..	155,694
INANGAHUA HOSPITAL BOARD	—	—	—	—	—	—	Nil
GREY HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	—	..	..	..	503,964	..	503,964
Grey Hospital							
Overbridge	—	1961	..	..	46,528	..	46,528
Boilerhouse and laundry	—	1963	..	..	122,486	..	122,486
Mechanical Engineering Services (boilerhouse)	—	1963	..	..	76,516	..	76,516
Electrical reticulation	—	1965	..	..	26,976	..	26,976
Trades Block	—	1966	..	..	78,218	..	78,218
Kitchen Block	—	1966	..	..	101,240	..	101,240
TOTALS	—	..	..	..	451,964	..	451,964
Tasman Home							
Mechanical services							
TOTALS	—	..	..	..	52,000	..	52,000

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
WESTLAND HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	11	..	162,352	..	72,798	..	235,150
Westland Hospital							
Boiler	—	1962	..	..	24,880	..	24,880
Maternity Ward and X-ray Department ..	11 (M)	1963	162,352	..	..	..	162,352
Boiler	—	1967	..	..	47,918	..	47,918
TOTALS	11	..	162,352	..	72,798	..	235,150
MARLBOROUGH HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	26	..	175,842	..	66,100	..	241,942
Blenheim Hospital							
Ward additions	7 (G)	1958	48,434	..	..	..	48,434
Children's Ward extensions	19 (G)	1959	69,254				69,254
Boilerhouse additions	—	1964	..	..	38,656	..	38,656
Laundry additions	—	1967	..	..	27,444	..	27,444
Heating and hot water	—	1967	36,822	..	..	..	36,822
TOTALS	26	..	154,510	..	66,100	..	220,610
Holmdale Maternity							
Additions Nursery accommodation, Ante-Natal Clinic							
TOTALS	—	1958	21,332	..	..	..	21,332

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
NORTH CANTERBURY HOSP. BOARD COMBINED TOTALS	620	..	$ 2,598,026	$ 385,144	$ 1,777,317	$ 1,387,626	$ 6,148,113
Christchurch Hospital							
New lift and regrouping Wards 7 and 8 ..	—	1957	31,972	..	..	..	31,972
Conversion "Ranui" — House Surgeons' accommodation	—	1957	..	..	..	28,552	28,552
Cobalt Unit	—	1957	..	44,564	..	..	44,564
Tutorial Block	—	1958	..	..	..	83,468	83,468
New bulk store..	—	1958	..	..	184,744	..	184,744
Recovery Ward: Storage anaesthetic equipment	7	1959	21,516	..	..	..	21,516
Blood Bank alterations: Medical Library ..	—	1961	..	22,498	..	..	22,498
Extensions, School of Nursing	—	1962	..	..	..	21,970	21,970
Convert Ward 11 to Genitourinary Unit ..	33	1962	31,798	..	..	..	31,798
Laundry extensions	—	1964	..	..	170,980	..	170,980
Kitchen extensions	—	1965	..	..	24,590	..	24,590
Boilerhouse	—	1967	..	..	622,064	..	622,064
Stage 1—Power supply main's cabling ..	—	1967	..	..	33,760	..	33,760
Walking tunnel..	—	1967	..	..	280,515	..	280,515
TOTALS	40	..	85,286	67,062	1,316,653	133,990	1,602,991
Princess Margaret Hospital							
Hospital	256 (G)	1958	2,385,936	..	..	..	2,385,936
Nurses' Home	222	1960	..	..	..	1,091,826	1,091,826
Water supply	—	1960	..	..	37,590	..	37,590
Maintenance Block	—	1963	..	..	53,790	..	53,790
Roading	—	1964	..	..	31,784	..	31,784
TOTALS	478	..	2,385,936	..	123,164	1,091,826	3,600,926
Burwood Hospital							
Nurses' Home additions	62	1957	..	..	..	161,810	161,810
Boilerhouse	—	1964	..	..	285,782	..	285,782
Electrical reticulation	—	1964	..	..	24,304	..	24,304
Theatre Block, X-ray and Laboratory ..	—	1964	..	318,082	..	..	318,082
TOTALS	62	..	..	318,082	310,086	161,810	789,978

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Coronation Hospital							
Ward alterations	40	1965	32,954	..	..	..	32,954
Automatic fire-sprinkler system	—	1967	20,278	..	..	..	20,278
Totals	40	..	53,232	..	..	..	53,232
St Helens Hospital							
Premature Baby Unit with Room ..	—	1967	21,768	..	..	..	21,768
Lift development	—	1967	..	..	27,414	..	27,414
TOTALS	—	..	21,768	..	27,414	..	49,182
Essex Maternity (Linwood) Extensions and alterations							
TOTALS	—	1959	27,380	..	..	..	27,380
Waikari Hospital—Alterations to provide accommodation: maternity and general cases							
TOTALS	—	1958	24,424	..	..	..	24,424
ASHBURTON HOSPITAL BOARD			$	$	$	$	$
COMBINED TOTALS	16	..	21,148	118,514	115,612	50,560	305,834
Ashburton Hospital							
Out-patient Department	—	1958	..	27,324	..	..	27,324
Nurses' Home extensions	16	1958	..	..	..	17,586	17,586
Tutorial Block	—	1960	..	..	..	32,974	32,974
Theatre additions	—	1962	..	91,190	..	..	91,190
Chalmer's Ward additions	—	1964	21,148	..	..	..	21,148
Purchase two boilers	—	1967	..	..	50,280	..	50,280
Boilerhouse	—	1967	..	..	65,332	..	65,332
TOTALS	16	..	21,148	118,514	115,612	50,560	305,834

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
SOUTH CANTERBURY HOSP. BOARD COMBINED TOTALS	142	..	$ 560,608	$ ..	$ 121,166	$ 423,771	$ 1,105,545
Timaru Hospital							
Store and Tutorial Block	—	1958	..	..	..	43,738	43,738
Jean Todd Maternity Annexe	58 (M)	1961	381,248	..	..	..	381,248
Laundry	—	1962	..	..	93,088	..	93,088
Kitchen alterations	—	1966	..	..	28,078	..	28,078
Lindsay Home (Staff)	52	1966	..	..	..	323,713	323,713
Lift and tower	—	1966	33,300	..	..	..	33,300
TOTALS	110	..	414,548	..	121,166	367,451	903,165
Waimate Hospital Nurses' Home							
TOTALS	16	1959	..	..	..	56,320	56,320
Geraldine							
Maternity Hospital	8 (M)	1960	102,800	..	..	..	102,800
Geriatric (old maternity)	8 (G)	1967	43,260	..	..	..	43,260
TOTALS	16	..	146,060	..	..	..	146,060
WAITAKI HOSPITAL BOARD COMBINED TOTALS	79	..	$ 836,348	$ 28,004	$ 244,940	$ 288,596	$ 1,397,888
Oamaru Hospital							
Stores, Maintenance Staff Workshops ..	—	1957	..	..	38,002	..	38,002
Nurses' Home	46	1958	..	..	..	288,596	288,596
Isolation alterations	—	1959	21,008	..	..	..	21,008
Alterations to Laboratory & Medical records	—	1961	..	28,004	..	..	28,004
Boilerhouse	—	1962	..	..	164,064	..	164,064
Loading	—	1963	..	..	42,874	..	42,874
Clinical and Ward	23 (G)	1964	782,510	..	..	..	782,510
TOTALS	69	..	803,518	28,004	244,940	288,596	1,365,058

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Victoria Home							
TOTALS	10	..	32,830	..	..	..	32,830
VINCENT HOSPITAL BOARD COMBINED TOTALS	62	..	$ 604,916	$ ..	$ 38,706	$ 57,057	$ 700,679
Clyde Hospital (Dunstan)							
Hospital	30 (G) 8 (M)	1960	385,892	..	..	..	385,892
Mortuary and linen store	—	1964	..	..	38,706	..	38,706
TOTALS	38	..	385,892	..	38,706	..	424,598
Cromwell Hospital							
Maternity Block	10 (M)	1960	219,024	..	..	..	219,024
Nurses' Home	14	1967	..	..	..	57,057	57,057
TOTALS	24	..	219,024	..	..	57,057	276,081
MANIOTOTO HOSPITAL BOARD COMBINED TOTALS	25	..	$ 149,758	$ ..	$ ..	$ ..	$ 149,758
Ranfurly Hospital							
Ward extensions and Nurses' Home TOTAL	11 (G) 14	..	149,758	..	..	..	149,758

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
OTAGO HOSPITAL BOARD							
COMBINED TOTALS	287	..	$ 1,286,653	$ 566,956	$ 1,508,962	$ 526,534	$ 3,889,105
Dunedin Hospital							
Victoria lift and shaft	—	1958	37,856	..	..	..	37,856
Central laundry: Powerhouse	—	1959	..	..	1,147,806	..	1,147,806
Service tunnel under road to boilerhouse ..	—	1960	..	..	36,014	..	36,014
Queen Mary Maternity	50 (M)	1961	799,862	..	..	..	799,862
King Edward Pavilion: corridor and lifts ..	—	1962	25,370	..	..	..	25,370
Stage 2, corridor	—	1963	29,796	..	..	..	29,796
Office and Stores Block	—	1963	..	..	226,942	..	226,942
Temporary Out-patients Block	—	1963	..	24,294	..	..	24,294
Occupational Therapy Block	—	..	..	264,443	..	..	264,443
Intensive Care Unit	—	..	31,725	..	..	..	31,725
Trades Administration Building	—	..	..	..	77,072	..	77,072
TOTALS	50	..	924,609	288,737	1,487,834	..	2,701,180
Fulton Home							
TOTALS	60 (G)	..	241,752	..	..	..	241,752
Wakari Hospital							
Supervoltage	—	1958	..	223,464	..	..	223,464
Nurses' Home	170	1961	..	..	..	526,534	526,534
Chapel	—	1965	..	..	21,128	..	21,128
Psychiatric Unit	—	..	..	54,755	..	..	54,755
TOTALS	170	..	..	278,219	21,128	526,534	825,881
Mosgiel							
Maternity additions							
TOTALS	7 (M)	1958	56,202	..	..	..	56,202

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Lawrence							
Tuatepere alterations	—	1959	31,552	..	..	..	31,552
Tapanui—Alterations and additions	—	1967	32,538	..	..	..	32,538
TOTALS	—	..	64,090	..	..	..	64,090
SOUTH OTAGO HOSPITAL BOARD COMBINED TOTALS	44	..	$ 194,800	$ 55,864	$ 89,551	$ 147,356	$ 487,571
Balclutha Hospital							
Nurses' Home additions	38	1959		..	..	147,356	147,356
Theatre and Maternity Block extensions	6 (M)	1962	194,800	..	..	..	194,800
Boilerhouse additions	—	1965	..	..	39,788	..	39,788
Store	—	1965	..	..	24,921	..	24,921
Sewerage	—	1967	..	..	24,842	..	24,842
Out-patients Block	—	1967	..	55,864	..	..	55,864
TOTALS	44	..	194,800	55,864	89,551	147,356	487,571
SOUTHLAND HOSPITAL BOARD COMBINED TOTALS	215	..	$ 1,033,382	$ 56,900	$ 666,134	$ 54,832	$ 1,811,248
Kew Hospital							
Ward Block	90 (G)	1957	437,902	..	..	..	437,902
X-ray additions	—	1959	..	24,850	..	..	24,850
Dee Street Annexe	20 (M)	1962	74,746	..	..	..	74,746
Maternity Staff	20	1962	..	..	..	27,802	27,802
Mechanical services	—	1962	..	..	33,000	..	33,000
Workshop and store	—	1964	..	..	21,150	..	21,150
Electrical reticulation	—	1966	..	..	28,738	..	28,738
Laundry	—	1967	..	..	256,326	..	256,326
Boilerhouse	—	1967	..	..	167,890	..	167,890
TOTALS	130	..	512,648	24,850	507,104	27,802	1,072,404

Appendix No. 4—Achievements of Hospital Boards—1957–1967—*continued*

Hospital Boards	Beds	Completed	P/A*	C/S*	O/S*	S/A*	Total
Lorne Hospital							
Sewage Disposal Scheme	—	1961	..	..	26,520	..	26,520
Staff houses	—	1961	..	..	..	27,030	27,030
Additions	46 (G)	1966	280,964	..	..	..	280,964
TOTALS	46	..	280,964	..	26,520	27,030	334,514
Riverton Hospital							
Additions							
TOTALS	6	1966	38,545	..	..	..	38,545
Gore Hospital (Seddon)							
Kitchen Block	—	1958	..	..	132,510	..	132,510
Theatre additions	—	1961	..	32,050	..	..	32,050
TOTALS	—	..	..	32,050	132,510	..	164,560
Tuatapere							
Maternity							
TOTALS	8 (M)	1958	66,654	..	..	..	66,654
Lumsden							
Maternity							
TOTALS	10 (M)	1961	41,854	..	..	..	41,854
Mataura (Nithdale)							
Maternity (replace with 6-bed hospital)							
TOTALS	6	1967	49,847				49,847
Winton							
Additions							
TOTALS	5 (M)	1958	20,814	..	..	..	20,814
Wyndham							
Extension to Hospital							
TOTALS	4 (M)	1960	22,056	..	..	..	22,056

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